



The Senate

The Health of Canadians - The Federal Role

Interim Report of the Standing Senate Committee on
Social Affairs, Science and Technology

Chair:

The Honourable Michael J.L. Kirby

Deputy Chair:

The Honourable Marjory LeBreton

January 2002

**Volume Two:
Current Trends and
Future Challenges**

The Standing Senate Committee on Social Affairs, Science and Technology

Interim Report on
the state of the health care system in Canada

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Extract from the *Journals of the Senate* of March 1, 2001:

Resuming debate on the motion of the Honourable Senator LeBreton, seconded by the Honourable Senator Kinsella:

That the Standing Senate Committee on Social Affairs, Science and Technology be authorized to examine and report upon the state of the health care system in Canada. In particular, the Committee shall be authorized to examine:

- (a) The fundamental principles on which Canada's publicly funded health care system is based;
- (b) The historical development of Canada's health care system;
- (c) Health care systems in foreign jurisdictions;
- (d) The pressures on and constraints of Canada's health care system; and
- (e) The role of the federal government in Canada's health care system;

That the papers and evidence received and taken on the subject and the work accomplished during the Second Session of the Thirty-sixth Parliament be referred to the Committee;

That the Committee submit its final report no later than June 30, 2002; and

That the Committee be permitted, notwithstanding usual practices, to deposit any report with the Clerk of the Senate, if the Senate is not then sitting; and that the report be deemed to have been tabled in the Chamber.

After debate,

The question being put on the motion, it was adopted.

ATTEST :

Paul C. Bélisle
Clerk of the Senate

SENATORS

The following Senators have participated in the study on the state of the health care system of the Standing Senate Committee on Social Affairs, Science and Technology:

The Honourable Michael J.L. Kirby, Chair of the Committee
The Honourable Marjory LeBreton, Deputy Chair of the Committee

and

The Honourable Senators:

Catherine S. Callbeck
Joan Cook
Jane Cordy
Joyce Fairbairn, P.C.
Alasdair B. Graham, P.C.
Wilbert Keon
Yves Morin
Lucie Pépin
Douglas Roche
Brenda Robertson

Ex-officio members of the Committee:

The Honourable Senators: Sharon Carstairs P.C. (or Fernand Robichaud, P.C.) and John Lynch-Staunton (or Noel A. Kinsella)

Other Senators who have participated from time to time on this study:

The Honourable Senators Banks, Beaudoin, Cohen*, DeWare*, Ferretti Barth, Grafstein, Hubley, Joyal P.C., Milne, Losier-Cool, Rompkey, and Tunney

*retired from the Senate

INTRODUCTION

In December 1999, during the Second Session of the Thirty-Sixth Parliament, the Standing Senate Committee on Social Affairs, Science and Technology received a mandate from the Senate to study the state of the Canadian health care system and to examine the evolving role of the federal government in this area. The Senate renewed the mandate of the Committee in the First Session of the Thirty-Seventh Parliament. The terms of reference adopted for the purpose of this study read as follows:

That the Standing Senate Committee on Social Affairs, Science and Technology be authorized to examine and report upon the state of the health care system in Canada. In particular, the Committee shall be authorized to examine:

- a) *The fundamental principles on which Canada's publicly funded health care system is based;*
- b) *The historical development of Canada's health care system;*
- c) *Publicly funded health care systems in foreign jurisdictions;*
- d) *The pressures on and constraints of Canada's health care system;*
- e) *The role of the federal government in Canada's health care system.¹*

In response to this broad and complex mandate, in March 2001, the Committee re-launched its multi-year and multi-faceted study comprising five major phases. Table 1 provides information on each individual phase and their respective timeframes.

TABLE 1
HEALTH CARE STUDY:
INDIVIDUAL PHASES AND PROPOSED TIMEFRAMES

PHASE	CONTENT	TIMING (REPORT)
One	Historical Background and Overview	March 2001
Two	Future Trends, Their Causes and Impact on Health Care Costs	Winter 2002
Three	Models and Practices in Other Countries	Winter 2002
Four	Development of Issues and Options Paper	September 2001
Five	Hearings on Issues and Options Paper and Development of Final Report and Recommendations	Fall 2001/Winter 2002

¹ Debates of the Senate (Hansard), 2nd Session, 36th Parliament, Volume 138, Issue 23, December 16, 1999.

The Phase One report was released in March 2001. The first report recounted the history of how the federal government helped the provinces and territories to fund hospital and physician care. It focused in particular on the initial objectives of the federal government's involvement in health care and raised some questions about the future role of the federal government in light of the changing health care environment (e.g., increased recourse to drug therapy, hospital out-patient services, home care and community care). This first report also traced the evolution of health care spending and health indicators over the past several decades. Finally, it looked at a number of myths that are still current concerning the delivery and financing of health care in Canada and clarified the reality surrounding each of these myths. The objective of the first report was to provide factual information as well as to clarify the major current misconceptions that recur in the health care debate in Canada.

The purpose of this report is to present the evidence obtained in the second phase of the Committee's study on health care. The objectives of Phase Two were to examine the factors that can affect the affordability and sustainability of Medicare such as:

- The aging of the population and the increased demand that will be placed on the system if past and present patterns of use continue;
- Our growing Aboriginal population and its specific health care needs;
- Advances in health care technology, including drugs, that affect the organization, provision and cost of health care;
- The appearance of new diseases and the resurgence of "old" ones that may require costly therapy and treatment;
- The growing concern about the workload, stress and aging of our health care providers;
- Particular health care issues in rural and remote areas;
- The need for sufficient and comparable health-related information to make decisions in allocating resources and in delivering care;
- The role of preventive interventions in encouraging healthy lifestyles and thereby enhancing the potential for better health.

In order to meet the objectives of Phase Two, the Committee heard from a wide range of witnesses, including: officials from Health Canada the Department of Indian and Northern Affairs the Canadian Institutes of Health Research and the Canadian Coordinating Office for Health Technology Assessment; officials from provincial ministries of health; health care organizations; Aboriginal representatives; and health economists (a list of witnesses is provided in Appendix A). We are most grateful for their invaluable contribution.

This report consists of eleven chapters. Chapter One discusses demographic trends and forecasts and examines the various implications of population aging on the health care system. Chapter Two reviews past and current trends in drug costs and provides some information on the problem of inappropriate prescribing and utilization of drugs. Chapter Three summarizes the concerns about the availability, cost-effectiveness and appropriateness of both new and existing health care technologies. Chapter Four examines trends in disease and

injury and discusses their potential impact on the publicly-funded health care system. Chapter Five looks at the specific health and health care needs of Aboriginal Canadians. Chapter Six deals with issues related to the supply, retention and management of human resources in health care. Chapter Seven provides information on the level of funding for health research in Canada and on the future of health research in terms of its implications on health and health care. Chapter Eight provides information on the current stage in the development of the Canadian Health Infrastructure. Chapter Nine reviews the provision of home care in Canada. Chapter Ten examines the health care needs of rural Canada. Chapter Eleven discusses myths and realities in an attempt to clarify many of the misconceptions in order to ensure an informed, fact-based debate on health care.



CHAPTER ONE:

THE IMPACT OF POPULATION AGING ON THE HEALTH CARE SYSTEM

1.1 Population Aging

Demographic aging refers to the increasing average age in a society, and is characterized by the emergence of a greater proportion of older people in the overall population. From a historical perspective, the process of population aging in a given country is determined primarily by fertility (birth) rates and secondarily by mortality (death) rates. It can also be affected by the rate of immigration. Over the 20th century, various advances – public sanitation, medical breakthroughs such as vaccination, and technological enhancements – have increased life expectancy while fertility rates have declined markedly. The net result has been longer life expectancies and an aging population.

Canada's population is aging. The proportion of Canadians aged 65 and over more than doubled between 1881 and 1981, rising from 4.1 percent to 9.7 percent.² Since then, the percentage of the population aged 65 and over has increased steadily, to reach 12.5 percent of the population in 2000.³

I look at the aging of the population as one of the great successes of the health and social services systems.

Dr. Michael Gordon, National Advisory Council on Aging (2:36)

Demographic aging is expected to intensify in the coming decades, as the “baby-boomer generation” gets older. The baby-boomers are those Canadians who were born between 1946 and 1965, a period during which the number of births soared. According to recent projections by Statistics Canada, the proportion of seniors (those aged 65 and over) will reach 14.6% of the population by 2010 and then grow more rapidly as increasing numbers of baby-boomers reach retirement age. By 2031 they are expected to represent 23.6 percent of the population.⁴ The rate of increase will then subsequently slow down, and seniors should constitute about 25% of the population by 2051.

Witnesses told the Committee that the cut-off point used to identify “seniors” (those over 65) continues to be used exclusively for historical reasons rather than scientific ones. As Abby Hoffman, Director General of the Health Care Directorate at the Health Policy and Communications Branch of Health Canada, said, “We use it because it is the agreed legal age for certain purposes of retirement, but it has no use other than that.”⁵ More importantly, the category “over 65” is not at all a homogeneous one. There are many differences amongst seniors that depend on factors such as gender, socio-economic status, place of residence, or ethnic background.

² David Cheal, “Aging and Demographic Change,” *Canadian Public Policy*. Vol. XXVI, supplement 2, August 2000, p. S110.

³ Statistics Canada, CANSIM, Matrix 6367.

⁴ Réjean Lachapelle and Jean-Marie Berthelot, Brief to the Committee, 21 March 2001, p. 2.

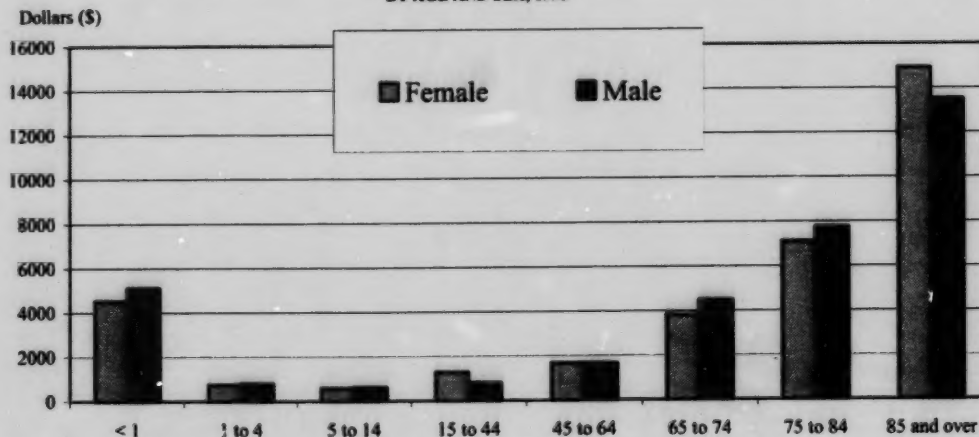
⁵ Abby Hoffman (7:19).

Many demographers stress the need to distinguish between younger and older seniors, noting, for example, that the prevalence of institutionalization does not really begin to increase until age 75. At the same time, however, according to Professor Byron Spencer of McMaster University, "roughly speaking, the 'old old' make somewhat less use per capita of physician services – of specialized services in particular – than do people in the 'younger old' ages."⁶ The proportion of people aged 85 and over within the senior population has been increasing over the years. According to Statistics Canada, it will continue to do so, although not uninterruptedly, as the pattern depends on the aging of the baby-boomers. The proportion of those over 85 is expected to reach 21% of all seniors by the time all the baby-boomers have reached that age in 2051.

1.2 The Impact of Population Aging

As Graph 1.1 shows, health care costs follow a pattern that varies with age. They tend to be relatively high in the earliest years, fall significantly during youth and young adulthood, rise gradually during middle age and then sharply increase during old age. On average, per capita public spending on health care for those aged 65 and over is almost five times greater than per capita spending on the rest of the population. Growth in health care spending in the older age groups is exponential: spending more than doubles from ages 45-64 to ages 65-74; it doubles again from ages 65-74 to ages 75-84; and it doubles once again from the 75-84 age group to the 85 and over age group.

GRAPH 1.1: PROVINCIAL GOVERNMENT PER CAPITA HEALTH CARE SPENDING,
BY AGE AND SEX, 1998



Source: CIHI 2000 and Library of Parliament.

Given this pattern, both the growing number of seniors and the fact they will make up a larger percentage of the population raise many concerns for the future sustainability of Canada's health care system. There remains, however, a considerable degree of disagreement

⁶ Byron G. Spencer, Brief to the Committee, 22 March 2001, p. 7.

among Canadian experts as to the impact that an aging population will have on overall health care costs. A review of the literature points to at least four different plausible scenarios:⁷

- (a) The **"nightmare high-cost"** scenario. This scenario assumes that, while people live longer, they still get sick or become disabled at the same age as now. Thus, health care costs continue to rise at the same rate as over the past two decades. The combined effects of these two trends (population aging and increased costs) leads to a doubling of the percentage of GDP devoted to health care spending. The "crisis" is further compounded by the fact that a smaller percentage of the population is working and contributing to the public purse.
- (b) The **"compressed morbidity"** scenario. This scenario supposes that people will live longer without disability or disease, meaning that overall health care costs will not rise as sharply as the more pessimistic scenarios envisage.
- (c) The **"manageable costs"** scenario. The onset of disability and disease is postponed to the same extent as death itself, while rising costs in health care are offset by budgetary cuts elsewhere.
- (d) The **"reformed system"** scenario. Significant changes to the delivery of health care result in greater efficiencies that will allow the system to cope with the added pressure of an aging population.

Witnesses who testified before the Committee reflected these various views. For example, the Conference Board of Canada contended that health care will consume an increasing proportion of government expenditures in the coming years as a result of population aging. The Board estimates that, by 2020 in both British Columbia and Ontario health care expenditures will represent about 50 percent of total provincial government spending (compared to 38 and 36 percent, respectively, in 2000).⁸ Similarly, William Robson, Vice-President and Director of Research at the C.D. Howe Institute, calculated that if the provinces and territories continue to tax the same share of their gross domestic products as they do at present, health spending in Newfoundland, the Yukon, and the Northwest Territories could require fully 100% of their own-source revenue by 2040.⁹

Dr. Michael Gordon, of the National Advisory Council on Aging (NACA), stressed that, in attempting to gauge the impact of an aging population on health care spending, we should be careful not to make unwarranted assumptions about the state of health of seniors in the future. Nor should we simply assume that the current level of efficiency of the health care system will prevail. To illustrate this point, he stated in his brief to the Committee that, "if we were to extrapolate the length of hospital stays for seniors in 1999 based on data from 1971, the result would be 50% higher than the actual numbers."¹⁰

⁷ These four schools of thought are well summarized in: Canadian Medical Association, *In Search of Sustainability: Prospects for Canada's Health Care System*, August 2000.

⁸ Conference Board of Canada, Brief to the Committee, 21 March 2001, p. 5.

⁹ William Robson, *Will the Boomers Bust the Budget?*, Brief to the Committee, 21 March 2001.

¹⁰ Dr. Michael Gordon, NACA, Brief to the Committee, 21 March 2001, p. 5. In fact, a number of factors influence the average length of stay in hospital including advances in surgical and other procedures, the greater range and efficacy of available drugs, as well as more sophisticated approaches to convalescence.

For his part, Professor Byron Spencer pointed out that population aging takes place slowly; this means that there is still time to develop appropriate public policy responses. He also noted that "the ratio of the total population to the population of working age is low today, by historical standards, and it will not change much for another fifteen or twenty years."¹¹ This ratio, known as the "dependency ratio," is used as a rough indicator of the ability of the population to support itself. It usually compares the number of people who are of working age (20 to 64) to those who have either not yet entered the workforce (0 to 19) or who are no longer working (65 and over). This dependency ratio in Canada reached a peak in the middle of the 1960s, as a result of the high proportion of young dependants (the baby-boomers). Since then, the ratio has declined substantially.

Some analysts suggest that the declining trend in the dependency ratio is misleading since the 'dependant' population is now more heavily concentrated amongst seniors, who are heavier users of health care, than amongst the dependent young.¹² For this reason, William Robson told the Committee:

*The broad directions are clear. In the coming decades, the older population, who are more intense users of health services, will grow quickly. The younger working population, who participate in the workforce and generate government tax revenue, will grow relatively slowly or even shrink.*¹³

Professor Spencer presented a strong case to the Committee suggesting that the increases in health care spending that will occur as the population ages could very well be balanced by decreases in other areas of government expenditures that will also come about as a result of population aging. He pointed out to the Committee that:

*It is important to note that if you are concerned about the overall impact of population aging, it makes little sense to focus on one area in which costs will go up and say there is a crisis, without also focusing on other areas in which costs will not go up or may even go down. For example, the residents of penal institutions are mostly young. In that area there would be noticeable cost savings. Older people do not receive Employment Insurance, yet that is a very large component of government expenditures, et cetera.*¹⁴

And, he concluded that:

If we consolidate all of the different categories of expenditure, not just the areas where there is an age-related potential crisis, the impact is, in a series of progressions, that government expenditure increases in consequence of population change and the aging

¹¹ Byron Spencer, Brief to the Committee, p. 1.

¹² See, for example, a report by the Office of the Auditor General of Canada, *Population Aging and Information for Parliament: Understanding the Choices*, Chapter 6, 1998 Report.

¹³ William Robson (3:5). In this report, the testimony received by witnesses printed in the *Minutes of Proceedings and Evidence of the Standing Senate Committee on Social Affairs, Science and Technology* will be hereafter referred to only by issue number and page number within the text.

¹⁴ Byron Spencer (3:30).

*of the population at very much the same rate as the population as a whole. Government expenditures would increase approximately 50 per cent over that period, while the population increases 50 per cent over that same projection period.*¹⁵

According to Professor Spencer, the challenge we are facing is therefore one of properly allocating the resources that are available to governments rather than an absolute shortage of resources.

Assessing the impact of an aging population on health care costs also requires an understanding of how best to meet the health and health care needs of that population. Jean-Marie Berthelot from the Health Analysis and Modelling Group of Statistics Canada indicated to the Committee that "the health of the current generation of 45 to 64 year olds is better than that of the same category twenty years ago."¹⁶ Moreover, this generation "has a higher level of education, has smoked less and is comprised of more individuals with employment income (mainly because of higher labour market participation by women) than the previous generations."¹⁷

New indicators to measure how much of our lives are spent in good health have been developed, including *dependence-free life expectancy* (DFLE) and *health-adjusted life expectancy* (HALE). Different levels of dependency (summarized in Table 1.1) have been identified that require different types of assistance and entail varying levels of cost for the health care system. If most of tomorrow's seniors will spend their additional years of life in relatively good health (the 'compressed morbidity' hypothesis), then the impact of aging will be considerably smaller than if longer life expectancy is associated with a correspondingly longer period of illness (the 'expanded morbidity' hypothesis). In this regard, Mr. Berthelot explained:

*Between 1986 and 1996, years of dependence-free life expectancy at age 65 increased significantly, from 12.0 to 12.7 and from 12.7 to 13.5 for men and women respectively. By contrast, there was little change in life expectancy with dependence. Thus, the proportion of dependence-free lives increased.*¹⁸

He also pointed out that there was no clear correlation between the amount different countries spend on health care and the age profile of their population. In their brief, Statistics Canada noted that "the United States spends close to 14% of its GDP on health care but the proportion of seniors in its population is less than 13%, whereas Sweden spends less than 9% of its GDP on health care, even though its proportion of seniors is 17%" of the population, and that, nonetheless, "life expectancy of Swedes at 65 years of age is higher than that of Americans."¹⁹

¹⁵ Byron Spencer (3:16).

¹⁶ Jean-Marie Berthelot (2:11).

¹⁷ *Ibid.*

¹⁸ Jean-Marie Berthelot (2:10).

¹⁹ Lachapelle and Berthelot, Brief to the Committee, p. 4.

TABLE 1.1
NEW HEALTH STATUS INDICATORS

1	Dependence-free	No dependency or needs help only with heavy housework
2	Moderately dependent	Needs help for meal preparation or for shopping for groceries or other necessities or for everyday housework
3	Severely dependent	Needs help for personal care or for moving around the house
4	Institutionalized	Lives in a health care institution

Source: Martel, Laurent and Alain Bélanger, "An Analysis of the Change in Dependence-Free Life Expectancy in Canada Between 1986 and 1996," in Statistics Canada, *Report on the Demographic Situation in Canada*, 1999, p. 171.

Another important issue raised to the Committee concerns whether the increased health care costs associated with an aging population are due to aging *per se*, or whether they can be more plausibly attributed to the costs of dying. As Rob Brown, from the Task Force on Health Care Financing of the Canadian Institute of Actuaries, told the Committee:

*We expend something in the order of 50 per cent to 70 per cent of the final year health care costs just prior to death. In fact, there are estimates that up to 50 per cent of our total lifetime health care expenditures may be made just prior to death.*²⁰

This was also the general picture painted by Abby Hoffman who noted that, "the extremes of relative expenditure on the old and the young are more attributable to the proximity of death than they are to the simple fact of being older."²¹

While this assessment can help identify more precisely the causes of increased health care spending generated by having more older people, it does not lead to any easy policy prescriptions. Dr. Michael Gordon put this point pithily to the Committee:

*I would like to note that if we could only get rid of the last year of life, we would save a lot of money. The problem is that the last year is only known afterwards. (...) One does not decide to forego surgery, as I went through with my father last week, and who is 89, because one may die from it. It is done because the person is vibrant and needs the surgery. Should he die in three weeks, one might say that that was a waste of money, but that is not the way we provide health care. We do not look from the back; we always look forward, fortunately.*²²

²⁰ Rob Brown (2:15).

²¹ Abby Hoffman (7:7).

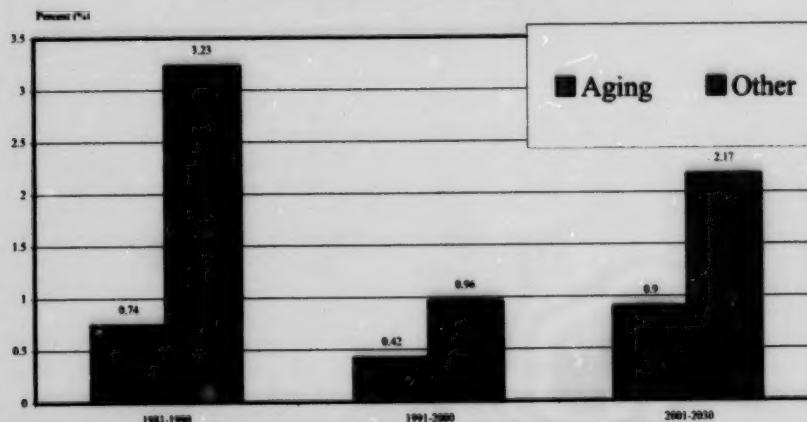
²² Dr. Michael Gordon (2:39).

A number of witnesses stressed that while the aging of the population will be one of the important drivers of cost increases to health care over the coming decades, it is not the only one, and probably is not even the most important one. Health Canada identified the following factors driving changes in health care spending:

- Population aging
- Fiscal capacity
- Technology and innovation
- Factors affecting need and demand for health services (including population health status, preferences and values)
- Changes in the structure of health care delivery systems
- Relative costs of health care compared to general price inflation

Against this background, Health Canada's projections anticipate that although population aging will account for an increasing percentage of the growth in health care expenditures in the period from 2001-2030, it will still represent under 30% of the total projected growth, as shown in Graph 1.2.²³

GRAPH 1.2: HEALTH CARE COST DRIVERS
Average Annual Rate of Growth in Real Expenditures per Capita



Source: Health Canada, *The Potential Impact of Aging on Canada's Health Care Costs*, Presentation to the Committee, 5 April 2001.

1.3 Caring for Canadian Seniors

1.3.1 Providing a Continuum of Care

According to Dr. Michael Gordon of NACA, a key dimension of meeting the needs of Canadian seniors, now and in the future, is "to develop and more fully integrate"²⁴ the

²³ Health Canada, Brief to the Committee, slide 6.

²⁴ Dr. Michael Gordon, Brief to the Committee, p. 2.

various health care components into a continuum of care that would encompass wellness promotion, illness and injury prevention, acute hospital care, medical care, home care, long-term care and palliative care. There are, however, many challenges associated with the development of such a continuum, embracing issues such as what services should be covered by the publicly-funded system, how these should be delivered in an integrated fashion, and how to ensure that there is an adequate supply of health care providers to meet the variety of needs.

Professor Spencer stressed to the Committee the importance of an integrated approach:

I would like to emphasize the importance of an overall, integrated look at the health care system as a system, so that substitution of one type of personnel for another, or the question of care in hospitals versus in the community, and all the rest of it are also considered. That is very important. There is much scope for saving costs by moving towards best practice, where that is being demonstrated repeatedly in all sorts of studies. There are better ways of doing things, yet we seem to have a system that does not readily accommodate this information as it becomes available.²⁵

The idea of a more integrated approach to health care delivery in order to meet the needs of an aging population brought forward the suggestion from several witnesses that health services provided in the home and prescription drugs should be covered under the *Canada Health Act*. For his part, Dr. Gordon proposed that home care for the elderly be publicly covered:

...home care should now be part of the health care system. The Canada Health Act, when constructed, had a rather limited view of health care, which at the time was perhaps appropriate. However, much of health care can now be delivered in the home. Many of the problems related to aging and function, rather than requiring high-tech treatments, require relatively low cost, but very important assistance in home care. We believe that this should become part of the health care system.²⁶

With respect to prescription drugs, the Committee was told that, although all provinces provide public coverage to seniors, the nature and scope of this coverage vary widely, as drugs prescribed for use outside the hospital setting are not under the umbrella of the *Canada Health Act*. More importantly, Dr. Gordon stated that despite public coverage for prescription drugs, Canadian seniors may still face financial hardship: "the funding systems in some provinces require that, for a very modest increase in your income, your costs of Pharmacare escalate rapidly." (The issues regarding prescription drugs and home care are discussed in more detail in chapters Two and Nine respectively.)

Finally, witnesses stressed the importance of providing appropriate palliative care: "it is important to have a comprehensive palliative care system that is institutional or home-

²⁵ Byron Spencer (3:36).

²⁶ Dr. Michael Gordon (2:38).

based – whatever is appropriate for the individual – and that the time has come to ensure that all Canadians who require palliative care have access to it.”²⁷

1.3.2 Primary Care Reform

It is clear from the testimony presented to the Committee that the current fee-for-service system has serious drawbacks with regard to providing even current levels of care to the elderly. Geriatric practice, as NACA indicated, requires time and health care and professional resources that are less readily provided when physicians’ sole source of income is fee-for-service payment. In this regard, Dr. William Dalziel, of the University of Ottawa, stated:

If I were a family physician, I would put my office up three flights of stairs with no elevator. They cannot possibly provide good care to the elderly, or they would be making less than the checker at Loblaws.

*Dr. William Dalziel, University of Ottawa
(3:19)*

I can run a middle-aged person through my office, usually with a simple problem, without dealing with a backdrop of five other problems and taking six drugs, in 15 or 20 minutes. The average consultation for a senior would take an hour to an hour and half. In most provinces, you are paid exactly the same amount for each patient.”²⁸

These kinds of prospects have a major impact on the recruitment of geriatric specialists. Dr. Dalziel noted that, “I have residents coming to me to ask why they should do two more years’ training in geriatrics so that they can earn 30 to 50 per cent less money.”²⁹ Only seven physicians are expected to enter programs in Canada to become geriatric specialists this year. Four of these are in Quebec, leaving only three for the rest of the country. Dr. Dalziel estimated that there is already a shortage of approximately 500 specialists in the field.

The issue of physician remuneration is part of the much broader discussion about primary care reform (see Chapter Six). Primary care reform also provides possible avenues for developing a more integrated approach to the provision of the full continuum of care, which is of great relevance to the health care needs of seniors. This implies that a broader range of health services is available at this level, that a wider range of health care providers is available and that services are delivered in the most cost-effective manner. Overall, primary care reform that allows these different skills to be more effectively teamed together allows seniors (and others) to have better access to the health services they need, when they need them.

1.3.3 Wellness Promotion and Illness Prevention

The importance of health promotion and disease prevention is another point that was made by several witnesses. Dr. William Dalziel stated categorically that “the key to staying healthy is exercise” and gave the following example:

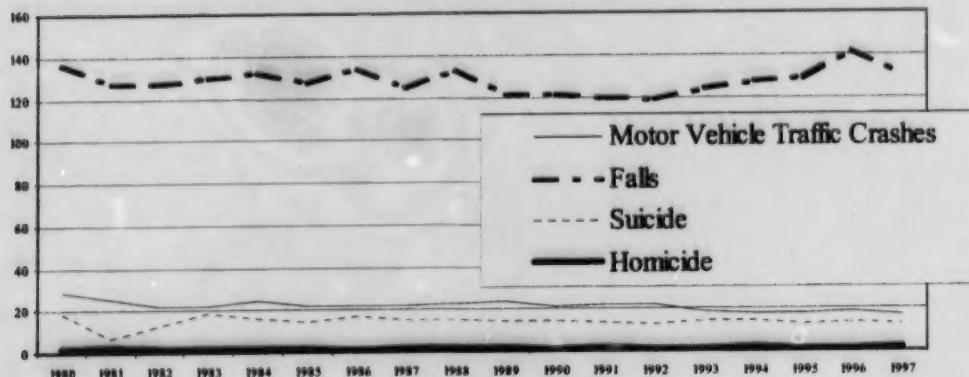
²⁷ *Ibid.*

²⁸ Dr. William Dalziel (3:18).

²⁹ Dr. William Dalziel (3:12).

Elderly women training two times a week for six months were made five years younger in terms of heart and lung capacity. Over an eight-week strength training program for women in their 90s living in nursing homes, it was found that they increased their quadricep muscle strength by 174 per cent. People stopped falling. They threw away canes and walkers.³⁰

GRAPH 1.3: INJURY MORTALITY, SELECTED CAUSES
Rate/100,000, Over Age 75, Both Sexes, 1980 to 1997



Source: Health Canada, *The Potential Impact of Ageing on Canada's Health Care Costs*, Presentation to the Committee, 5 April 2001.

Data provided by Health Canada (see Graph 1.3) show that falls are amongst the most important preventable causes of death amongst seniors, leading to more than double the rate of mortality per 100,000 population than motor vehicle crashes, homicides and suicides combined. Despite the real possibility that expenditure on health promotion and disease and injury prevention would improve the quality of life for many seniors, and save the system money, NACA expressed concern that federal investments in health promotion programs had dwindled throughout the 1990s.

Our conclusion is that there are resources to be saved by the application of good prevention and health promotion measures. That is one reason to pursue them, but the most important reason is to have a healthier population for as long as life lasts for the individuals in question.

Abby Hoffman
Health Canada (7:23)

1.3.4 New Methods of Funding

Perhaps the most important issue that specifically touches on the aging population has to do with health care financing. It was generally agreed that, at least until the peak of the baby-boom generation has died, there would be important cost pressures placed on the system that could be directly attributed to the aging of the population. This raises the question as to how any additional costs should be covered.

³⁰ Dr. William Dalziel (3:10).

Witnesses suggested that there is an issue of inter-generational fairness that needs to be taken into account in this regard. Our health care system is basically funded on a pay-as-you go basis. That is, revenues are collected from people who currently pay taxes, and these pay for government services to everyone, including those who are no longer paying taxes, or paying less than they did while working. As the proportion of seniors increases, however, there will be proportionally fewer people of working age to cover the (growing) costs of health care for the aging population. The burden on the working population could thus be expected to increase, resulting in what some see as an unfair transfer of wealth from one generation to another.

One way of dealing with this problem is to develop a pre-funding mechanism that would allow future expenses to be paid for by the people who would actually make use of them. This was the intent of the proposal put to the Committee by William Robson of the C. D. Howe Institute. More precisely, he suggested that part of the current Canada Health and Social Transfer (CHST) from the federal government to the provinces and territories be converted into a "senior's health grant." He explained:

...we could replace part of the CHST with a new grant, set at \$3,000 per senior, and initially offset the grant with matching decreases elsewhere so that it is cost-neutral in the first year. Over time, we would allow the grant to escalate at the same rate per capita as other grants relative to the general population, but being geared to the seniors' population, it would grow more quickly. In that way, you could accommodate some of the demographic pressure on the federal transfers.³¹

Another method of pre-funding that was brought to the Committee's attention was the proposal from the Clair Commission in Quebec for a special "loss-of-autonomy fund" that would be financed through employer and employee contributions. Similar to a dedicated pension fund, it could be managed by an arms-length body that would ensure its financial viability and that its resources be used to help finance a broader range of services for the aging population.

1.3.5 Public Policy: Long-Term Horizon

Finally, several witnesses raised the issue of the need for longer-term overall policy planning with regard to the needs of the aging population. Professor Byron Spencer noted, for example, that at one time the Economic Council of Canada provided medium- to longer-term economic projections and analysis, and that it might be useful to consider setting up an agency that would have as its focus, in particular, "the anticipation of the effects of population aging."³² This could strengthen our ability to regularly study the economic implications of demographic change and their fiscal and budgetary consequences for government.

³¹ William Robson (3:7).

³² Byron Spencer, Brief to the Committee, p. 5.

1.3.6 A Unique Approach to Residential Long-Term Care

During the course of its study, the Committee received interesting information on Laurier House. Situated in Edmonton (Alberta), Laurier House could be described as "condo care": residents buy their own suites; receive on-site constant medical care; pay a monthly fee for operating costs, food and domestic services; and when they die, their estate receives back most of the capital investment. Laurier House is operated by the Capital Care Group, the largest publicly funded and operated continuing care organization in the country.

Laurier House has 78 suites occupied by 100 people. One-bedroom suites cost \$97,000-\$115,000; two-bedrooms \$118,000-\$136,000; studios \$88,000. The monthly fee for residents, depending on their accommodation, varies from \$950 to \$1,060. Health services are funded by Alberta Health. Laurier House differs from standard nursing homes in that residents buy their suite; the provincial government does not put any money into capital costs.

1.4 Committee Commentary

The Committee acknowledges that there remains a considerable degree of disagreement among experts as to the impact that an aging population will have on the sustainability of the health care system. These differing views can be summarized into four different scenarios: the "nightmare high-cost" scenario, the "compressed morbidity" scenario, the "manageable costs" scenario, and the "reformed system" scenario.

Of these scenarios, the Committee feels that the least likely to be realized is the first one, the "nightmare high-cost" scenario. The evidence it heard suggests that while the aging population, especially during the peak of the baby-boom, will put important pressures on the health care system, these are unlikely to result, in and of themselves, in a full-blown crisis.

Indeed, the aging of the population is only one of a complex mix of factors – related to both supply and demand – that contributes to the increase in health care costs. Other cost drivers include the use of new technology, the cost of new drugs, changing patients' expectations, and so on.

This does not mean, however, that nothing needs to be done to help cope effectively with the pressures associated with demographic aging. The Committee believes that it is important to study carefully the various proposals for 'pre-funding' the costs associated with an aging population, at least until the full effects of the baby-boom generation have been felt. Moreover, we feel that the aging population increases the urgency of addressing a number of other issues, and may require that specific measures be adopted within broader programs of change.

For example, primary care reform that would not be organized exclusively on a fee-for-service basis and would therefore build in incentives for physicians to spend more time consulting with patients, has particular importance for seniors who often represent more complex cases. Primary care reform could also allow a wider range of services to be available at the initial point of contact with the health care system, something that is also of great interest to seniors who require care from a number of health professionals. This implies, however, that the issue of expanding public coverage to include these services also be addressed. And, in this

context, it is necessary to explore whether other services, such as home care and prescription drugs, should also come under the provisions of the *Canada Health Act*.

While primary care reform and expansion of public coverage, as well as issues related to the implementation of an integrated continuum of care, are of great relevance to the health of seniors, they also have many implications for the broader population. In Phase Four of its study, the Committee will examine these issues in more detail.

Finally, the Committee found Laurier House to be a rather unique and striking concept. Of course, the question may be raised as to whether Laurier House is a form of "two-tier" nursing care system. We suggest that it may represent a two-tier housing system for the ill, but that it still remains within a one-tier health care system.



CHAPTER TWO:

SPENDING ON DRUGS IN CANADA

The term “drugs” (or “medicines”) typically includes prescription drugs, non-prescription drugs (over-the-counter or OTC products) and personal health supplies. Prescription drugs are usually prescribed by a physician or dentist, dispensed by pharmacists, and received either in hospital or in the community. OTC products such as cough and cold remedies and pain relievers can be purchased without a prescription through a number of retail outlets. Personal health supplies such as oral hygiene products and home diagnostic kits are also available to the public through retail outlets.

Drugs can be patented or non-patented. A patented drug is one for which a patent has been issued. Non-patented drugs include drugs that are not yet patented, drugs whose patents have expired, drugs for which there has never been a patent and generic copies. Since 1987, the Patented Medicine Prices Review Board (PMPRB) has regulated the prices charged by manufacturers of patented drugs in Canada. There are two components to this price regulation. One is a limit on increases to the costs of patented drugs already on the market; the other is a limit on introductory prices of new patented drugs. The prices of non-patented drugs are not subject to regulation.

Health Canada is responsible for the approval of all drugs that enter the Canadian market. It assesses new drugs to ensure that they are safe to use and are effective in treating what they claim to treat. Authorization to market or distribute a medicine is granted through a Notice of Compliance (NOC). However, a drug may be distributed with specified restrictions before receiving a NOC, as an Investigational New Drug or under the Special Access Program (SAP).

Witnesses pointed out that drug therapy is an integral part of health care. The importance of drugs in treating disease, maintaining health and quality of life, and in preventing and reducing the need for surgery and hospital stays is well recognized. The Committee was told that appropriate drug therapy can optimize health outcomes and avoid other unnecessary costs.

2.1 Trends in Spending on Drugs

Data reported by the Canadian Institute for Health Information (CIHI) indicate that spending on drugs in Canada has grown continually over the past 25 years, from \$1.1 billion in 1975 to \$14.7 billion in 2000.³³ During this period, drugs accounted for an increasing portion of total health care spending: in 1975,

Drugs continue to consume an increasing share of Canada's health care dollar, accounting for the second largest category of health expenditures next to hospital services. In 2000, spending on drugs is expected to have reached \$14.7 billion, representing 15.5% of total health care spending, following increases of 8.9% and 9% in 1999 and 2000.

CIHI (2001)

³³ Spending on drugs reported by the CIHI includes prescription drugs, OTC products and personal health supplies, but does not include drugs dispensed in hospitals and other institutions.

drugs represented about 9% of total health care expenditures; by 2000, this share had increased to almost 16% (see Graph 2.1). Data from CIHI also suggest that total spending on drugs has been growing at a higher rate than inflation. Furthermore, since 1997, expenditures on drugs have been the second largest category of health care spending in Canada, behind hospitals but ahead of spending on physician services.

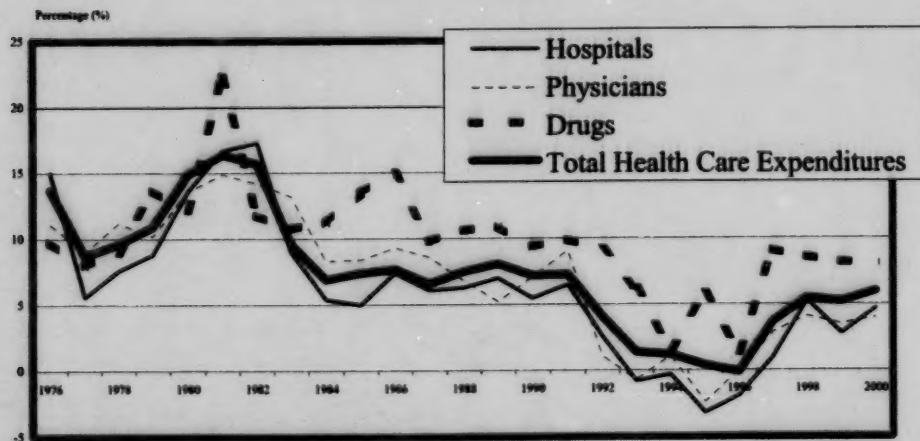
GRAPH 2.1 : SPENDING ON DRUGS AS A PERCENT OF TOTAL HEALTH CARE EXPENDITURES, CANADA, 1975-2000



Source: CIHI (2000) and Library of Parliament.

Graph 2.2 shows that spending on drugs in Canada, expressed in dollars per capita, continues to increase at a rate faster than spending in other key health care sectors such as hospitals and physicians. In fact, between 1990 and 2000, drug expenditures per capita increased by almost 93%, more than twice the average for all health care expenditures (40%).

GRAPH 2.2 : ANNUAL GROWTH IN PER CAPITA SPENDING ON HEALTH CARE, BY CATEGORY OF EXPENDITURES, 1976-2000



Source: CIHI 2000 and Library of Parliament.

Four components generally make up the cost of prescription drug products. These are: the manufacturer's price, the wholesaler's mark-up, the retailer's mark-up and the pharmacist's dispensing fee. Data from IMS Health (Canada) and the Federal/Provincial/Territorial Task Force on Pharmaceutical Prices estimated that, in 1997, wholesale and retail mark-ups and dispensing fees accounted for just over one-third of the end cost of a prescription drug while distribution costs and the manufacturer's selling price comprised 4% and 63% respectively of the final cost.³⁴

Prescription drugs make up the largest component of spending on drugs (77% in 2000, up from 72% in 1975). Non-prescription drugs and personal health supplies accounted for the remaining 23% of drug spending in 2000 (compared to 28% in 1975). For the most part, non-prescription drugs and personal health supplies are purchased directly by consumers and paid for out-of-pocket. By contrast, multiple payers are involved in the financing of prescription drugs. In 1975, the private sector accounted for 80% of prescription drugs expenditures. By 2000, private sector spending had decreased to 57%. During the same period, the share of prescription drugs financed from public sources increased steadily from 20% in 1975 to 43% in 2000.

More drugs are being sold in Canada every year, and patented drugs comprise an ever-growing proportion of drug sales. According to the Patented Medicine Prices Review Board (PMPRB), total sales by manufacturers of pharmaceuticals for human use in 2000 in Canada are estimated at \$10.0 billion. This represents an increase of 12.4% from 1999.³⁵ The total sales of patented drugs as a proportion of total drug sales have been steadily rising. At 43.9% of sales in 1995, by 2000, patented drugs comprised 63.0% of total sales.³⁶ From 1990 to 1995, sales of non-patented brand name drugs accounted for nearly 50% of the total drug sales of companies holding drug patents. From 1996 to 2000, however, that proportion declined steadily, reaching 28% in 2000.³⁷ At the same time, generic drug sales have been increasing. According to information published by IMS Health and reported by the PMPRB, total sales of generic drugs are estimated at approximately \$929 million in 2000, an increase of 15.2% from 1999.³⁸

Most patented drugs are sold by prescription. Of the patented drug products reported to the PMPRB for human use, about 96% required a prescription.³⁹ The quantity of patented drugs sold has also increased. From 1988 to 2000, the average annual increase in quantities of patented medicines sold was 12%. This compares with an average annual increase in their prices of 0.8%.⁴⁰

Overall, increases in spending on drugs in recent years have had an important impact on escalating health care costs. According to witnesses, this trend is likely to continue as

³⁴ Report of the Federal/Provincial/Territorial Task Force on Pharmaceutical Prices, *Drug Prices and Cost Drivers 1990-1997*, April 1999, pp. 13-14.

³⁵ PMPRB, *Annual Report 2000*, p. 15.

³⁶ *Ibid.*, p. 16.

³⁷ *Ibid.*, p. 17.

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ *Ibid.*, p. 23.

Canada's population ages, new drug therapies become available, and demand for prescription drugs increases:

Drugs will become more and more effective and will constitute an increasing portion of the therapies utilized and their share of health care costs will continue to rise. New drugs are expensive, but they will be prescribed and access will be demanded by an aging public that is increasingly aware of its options (...).⁴¹

2.2 Cost Drivers

A number of factors are contributing to increased drug spending including: increased levels of drug utilization, price increases and greater use of costlier, newer drugs. Some of these factors may have a greater impact on spending than others.

2.2.1 Trends in Drug Utilization

Drug utilization refers to the quantity of drugs used. Increases in the number of prescriptions can relate to a number of factors including: population increases; changes in the age structure and health status of the population; increases in the number of people being prescribed a particular drug; trends toward using drug therapy instead of other forms of treatment; new diseases and better treatment of existing diseases; and increases in the number of prescriptions per person.

More prescriptions are being written in Canada every year. IMS Health (Canada) reports that approximately 272 million prescriptions were dispensed in 1999, up by 6.3% over 1998. This gives an indication of the magnitude of drug utilization in Canada – an average of 8.9 prescriptions per person per year, up from 8.3 in 1998 (see Table 2.1).

TABLE 2.1
UTILIZATION OF PRESCRIPTIONS IN 1999

Average family size	3.1
Prescriptions per person	8.9
Prescriptions per family	28.0
Average prescription price	\$35.48
Consumption per family/year	\$978.89

Source: IMS Health (Canada).

⁴¹ Canadian Pharmacists Association, *Health Care Delivery, Optimizing Drug Therapy and the Role of the Pharmacist*, Brief to the Committee, March 2001.

There is much to learn and understand about drug utilization in Canada. Utilization is increasing, but at the same time utilization patterns for various drugs can differ across Canada and between Canada and other countries. There are significant variations in the use of some drug therapies across the country. Benzodiazepines are one example. Many more benzodiazepines are dispensed in Eastern Canada than in Western Canada: in 2000, 41.5 tablets and capsules of benzodiazepines were dispensed per capita from retail pharmacies in New Brunswick, a number that is more than three times the per capita rate in Saskatchewan. Significant variations also exist within provinces. Benzodiazepines' usage in northern Alberta, for example, is higher than in southern Alberta.⁴²

There is a significant variation in the utilization of pharmaceuticals that does not correlate to population distribution.

Dr Roger A. Korman (4:15)

Dr. Roger A. Korman, President of IMS Health (Canada), told the Committee that although a causal link has not yet been established between use of benzodiazepines and socio-economic status, there seems to be a correlation – usage is higher in lower socio-economic status areas.⁴³ Use of benzodiazepines also correlates more closely to the age of the prescribing physician than to the age of the patient – 90% of the top 100 prescribers of benzodiazepines in Alberta, Quebec and Ontario graduated from medical school before 1981.⁴⁴

Utilization of various drugs can vary from country to country. Although utilization of antibiotics is decreasing in Canada, it is still twice as high as utilization in the Netherlands. Ritalin is another example. Canadian prescriptions for Ritalin continue to grow at a rapid pace (9% in 2000), but are down by 5% in the United States.

2.2.2 Trends in Drug Prices

Both the federal and provincial governments have roles in controlling Canadian drug prices. At the federal level, the PMPRB reviews prices charged by the manufacturers of patented drugs to ensure that they are not excessive. In addition, provincial and territorial governments have used a number of approaches to manage drug prices in their Pharmacare plans. These include:⁴⁵

- Generic substitution – where a generic drug is available, the lower-priced generic product must be substituted for the equivalent brand name drug, unless a physician otherwise orders.
- Formulary management – this could include not listing drug products on formularies, listing with restrictions or de-listing.
- Reference-based pricing – paying for the lowest price drug in a therapeutic group. The main difference between reference-based pricing and generic

⁴² Dr. Roger A. Korman (4:15).

⁴³ *Ibid.*

⁴⁴ *Ibid.*, 4:16.

⁴⁵ A description of provincial cost controls can be found in the Institute of Health Economics Working Paper 00-2, *Public Policies Related to Drug Formularies in Canada: Economic Issues* and Devidas Menon, "Pharmaceutical Cost Control in Canada: Does It Work?", *Health Affairs*, Vol. 20, No. 3, May/June 2001.

substitution is that under the former, drugs in a category have only to be therapeutically equivalent, not chemically identical.

- Controls on mark-ups and dispensing fees - provincial governments can limit markups on drugs and dispensing fees paid to pharmacists.
- Risk-sharing - in some cases, governments have negotiated with drug companies to limit total expenditures on specific drugs. If expenditures exceed an agreed-upon level, the company pays the province for expenditures above that amount.
- Price freezes - Ontario introduced a price freeze from 1994 to 1998.

The PMPRB limits annual price increases of patented drugs to the increases in the Consumer Price Index (CPI). With the exception of one year (1992), prices for patented drugs have not increased more than the CPI since 1988. In 2000, the prices of patented drugs rose by an average of 0.4% while consumer prices increased by 2.7%.⁴⁶ The PMPRB also reviews the introductory prices of new patented drugs. Generally, prices for most new patented drugs are limited so that the cost of the new drugs will not be greater than the highest cost of therapy for existing drugs used to treat the same disease. The price of a new breakthrough drug is limited to the median price for the drug in seven other countries - France, Germany, Italy, Sweden, Switzerland, the United Kingdom and the United States. Furthermore, the price of a patented drug cannot exceed the highest price in these countries.⁴⁷

In 1987, Canadian prices for patented medicines were some 23% higher than median international prices. By the mid-1990s, Canadian prices were about 10% below such prices; in 2000, they were 8% below median international prices. The PMPRB reported that Canadian prices were slightly lower than prices in Germany, Sweden, Switzerland and the United Kingdom but higher than prices in France and Italy. Prices in the U.S. were higher than all other countries.⁴⁸

The F/P/T Task Force on Pharmaceutical Prices analyzed annual price changes of prescription drug products in six provincial drug plans. The study divided drug products into three categories: patented drugs; non-patented single source drugs; and non-patented multiple source (brand name and generic) drugs. In 1997, spending on patented drugs comprised about 50% of the total prescription spending in the six drug plans. Non-patented single source drugs made up 13% of the total amount spent by the plans on drugs in 1996. The Task Force compared the Canadian and foreign prices of the top-selling non-patented single source drugs reimbursed by the six drug plans and found that Canadian prices were, on average, 30% higher than the median international prices of the seven countries used by the PMPRB for comparative purposes. These prices contrast with Canadian prices for patented medicines, which were about 10% lower than median foreign prices.⁴⁹

Multiple source drugs (brand-name and generic) accounted for 44% of prescription drug plan spending of five of the provincial plans in 1997.⁵⁰ Data from the F/P/T

⁴⁶ PMPRB (2000), p. 18.

⁴⁷ *Ibid.*, p. 26.

⁴⁸ *Ibid.*, p. 21.

⁴⁹ *Drug Prices and Cost Drivers 1990-1997* (1999), p. 30.

⁵⁰ *Ibid.*, p. 34. Nova Scotia was not included.

Task Force on Pharmaceutical Prices indicate a clear trend toward higher generic drug prices in relation to their brand name equivalents.⁵¹ According to the Task Force, "this trend has occurred despite the fact that overall prices of generic drugs have remained stable or declined, and prices of their brand name equivalents have remained constant or increased during this period."⁵² Two possible explanations for this are: higher relative introductory prices for generic drugs; and differences in price trends for generic drugs with no brand name equivalent than for generics with brand name counterparts.⁵³ A study by the Fraser Institute (August 2000) also showed that generic drug prices were often higher in Canada than in the United States.⁵⁴

Drug prices vary from province to province. The F/P/T Task Force on Pharmaceutical Prices reported significant differences in the manufacturers' prices across Canada for the same drug products. In 1993, prices in Ontario, the highest price province, were 8.8% higher than the prices in British Columbia, the lowest price province. By 1997, the last year covered by the report, price differences had been reduced, with Nova Scotia, the highest price province, having prices that were 5% higher than the lowest price province, Manitoba. The Task Force also found that if all provinces in the study had paid the lowest available prices for the same products in 1997, \$60 million would have been saved.⁵⁵

2.2.3 Trends in the Types of Drugs Prescribed

A shift in prescribing patterns away from older therapies toward newer costlier drugs can have a significant impact on drug spending. Data compiled by the F/P/T Task Force on Pharmaceutical Prices reveal that in 1997, newer drugs (introduced since 1990) represented 57% of the total pharmaceutical expenditures in British Columbia. The introduction and use of new drugs was estimated to have been responsible for 32% of the increase in drug spending in British Columbia between 1990 and 1997.

2.2.4 Cost Driver Analysis

Using data from British Columbia, the F/P/T Task Force on Drug Utilization found that changes in prescription drug spending could be attributed to the following cost drivers (see Graph 2.3): price increases of existing drugs (18%), increased utilization of existing drugs (50%), and sales of new drugs in their first full year (32%). In 1997, drugs introduced on the Canadian market since 1990 (newer drugs) accounted for 57% of pharmacare expenditures in British Columbia. As a result of these findings, the Task Force concluded that increased drug utilization and increased consumption of newer drugs were the primary drivers of prescription drug spending.⁵⁶

⁵¹ *Ibid.*, p. 35.

⁵² *Ibid.*

⁵³ *Ibid.*, p. 36.

⁵⁴ The Fraser Institute, "Prescription Drug Prices in Canada and the United States," *Public Policy Sources*, August 2000.

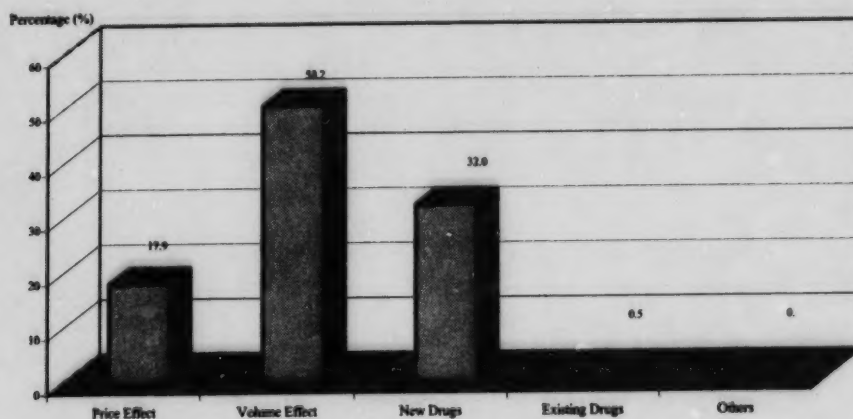
⁵⁵ *Drug Prices and Cost Drivers - 1990-1997* (1999), p. iii.

⁵⁶ Report of the Federal/Provincial/Territorial Task Force on Drug Utilization, *Drug Utilization in Canada*, April 1999, p. 1.

2.3 Appropriate Drug Therapy

Appropriate drug therapy refers to prescribing and utilizing the right drug at the right time. Appropriate and cost-effective utilization of drugs is essential if we are to both optimize health outcomes and avoid unnecessary health care costs. There are, however, two major barriers to appropriate drug therapy: inappropriate use by patients and inappropriate prescribing by physicians. Table 2.2 provides a brief outline of inappropriate use and inappropriate prescribing.

GRAPH 2.3: CONTRIBUTION TO INCREASES IN DRUG COSTS BY MAJOR COMPONENTS, 1990 TO 1997



Source: F/P/T Task Force on Drug Utilization, April 1999

Inappropriate prescription drug use is a problem of increasing significance. Estimates put patient non-compliance with prescribed drug regimes and early discontinuance of medications for chronic conditions such as high blood pressure and high cholesterol as high as 50%. Using Saskatchewan data with respect to patient use of cholesterol-lowering drugs, Dr. Robert Coombs, President and CEO of Health Promotion Research, pointed out that it takes 18 months to two years before the benefits of such drugs are realized, but only 10 percent of patients are still using their medication after 800 days. Non-compliance can lead to other adverse health situations, as well as increased visits to physicians and hospitals.⁵⁷ Patients often fail to take the medication as prescribed, stop taking their medication too soon, or neglect to refill prescriptions.

Every chronic care medication has severe compliance problems.

Dr. Robert Coombs (4:8)

⁵⁷ Dr. Robert Coombs (4:9).

TABLE 2.2
INAPPROPRIATE DRUG THERAPY: DEFINITION

INAPPROPRIATE DRUG USE ¹	INAPPROPRIATE PRESCRIBING ²
• Not having a prescription filled or refilled • Taking too much or too little of the drug prescribed • Erratic dosing, such as altering time intervals or omitting doses • Stopping the drug too soon • Taking a drug without a prescription • Combining prescription drugs with OTC products or illicit drugs • Combining prescription drugs with alcohol	• Under-prescribing or not specifying sufficient quantities or correct intervals of doses • Over-prescribing or going beyond the maximum therapeutic dosage • Prolonged use that result in iatrogenic effects and adverse reactions • Prescribing that is contraindicated by the medical condition • Contraindicated combinations that produced an undesirable effect

¹Coombs, Robert B., Ph.D. et al., *Review of the Scientific Literature on the Prevalence, Consequences, and Health Costs of Non-Compliance and Inappropriate Use of Prescription Medications in Canada*, PMAC, 1995.

²Coombs, Robert B., Ph. D., et al., *A Preliminary Review of the Causes of Inappropriate Prescribing and its Costs in Canada*. *Health Promotion Research*, February 1997.

Research also reveals that many patients do not understand their drug therapy. The Committee heard that half of all patients who walk out of a physician's office do not understand the drug they were given, why they were given it, or how they were supposed to take it.⁵⁸ Low levels of literacy are a major barrier to the appropriate use of prescription drugs.

Inappropriate prescribing of medications is also a problem, particularly in relation to seniors. The Canadian Association of Gerontology discussed the problem in a recent policy statement:

Seniors are more likely to receive prescriptions for medication that are potentially inappropriate; 11% to 46% of seniors receive at least one inappropriate prescription per year. (...) Prescribing errors account for approximately 19% to 36% of drug-related hospital admissions. The co-existence of multiple prescribing physicians, the number of drugs currently in the market (over 24,000), the number of relative contraindications documented (over 33,000) and deficiencies in physician knowledge related to both age and training are important contributors to the risk of inappropriate prescriptions.⁵⁹

⁵⁸ Dr. Roger A. Korman (4:17).

⁵⁹ Canadian Association of Gerontology, *Policy Statement: Seniors and Prescription Drugs*, 1999, (<http://www.cagacg.ca/english/pubs/pol-drugs.htm>).

TABLE 2.3
ESTIMATED ECONOMIC COSTS
OF INAPPROPRIATE DRUG THERAPY
(IN BILLIONS OF DOLLARS)

	INAPPROPRIATE USE	INAPPROPRIATE PRESCRIBING
Direct Costs:		
▪ Hospitals	1.78 – 2.74	0.30 – 0.85
▪ Nursing Homes	0.66	–
▪ Ambulatory Care	1.09	0.12 – 0.43
Indirect Costs:		
▪ Lost Productivity and Premature Deaths	3.5 – 4.49	0.42 – 1.28
Total Economic Costs	7.06 – 8.98	0.84 – 2.56

Source: as in Table 2.2.

Inappropriate prescription drug use costs the health care system substantial amounts of money. A 1995 study by Dr. Coombs *et al.* showed that the economic costs of inappropriate prescription drug use in Canada was between \$7 to \$9 billion annually, an amount equivalent to the cost of cancer, from all causes, in Canada.⁶⁰ This figure incorporated both direct costs – resulting from increased hospitalization, more medical visits and interventions, and higher nursing home costs; and indirect costs – resulting from lost productivity at work, absenteeism, and premature deaths. In 1997, Coombs and his team evaluated the economic costs of inappropriate prescribing as ranging between \$0.8 and \$2.6 billion annually (see Table 2.3).

Witnesses stressed that improving the quality of drug use would have a positive impact on patient health and on spending. Dr. Coombs suggested that good patient support programs would help ensure that patients were taking medication properly. Dr. Jeffrey Poston, Executive Director of the Canadian Pharmacists Association, emphasized the role of pharmacists in creating value for money in drug use.

Pharmacists make substantial contributions to primary health care every day by fixing patients' drug-related problems, improving patient compliance – the problem identified in the earlier presentation – managing minor illnesses, and promoting good health. However, it is also a fact that the knowledge and skills of pharmacists are underutilized (...).

Dr. Jeff Poston, CPA (4:10)

While drug use management strategies such as trial prescription programs can save money, the greatest improvement in value for money comes when pharmacists sit down with patients and critically review their therapy. In a recent study in Ontario, pharmacists reviewed the medication of elderly patients on five drugs or more. Eighty-eight percent of those patients had, on average, 3.23 drug-related problems. The pharmacist informed the physician taking care of the patient about these problems, and

⁶⁰ Coombs, Robert B., Ph.D. *et al.*, *Review of the Scientific Literature on the Prevalence, Consequences, and Health Costs of Non-Compliance and Inappropriate Use of Prescription Medications in Canada*, PMAC, 1995.

in 69 per cent of cases, the physician accepted recommendations from the pharmacist to make changes.⁶¹

Dr. Poston urged that pharmacists be an integral part of primary care reform. This would solve the problem of underutilizing pharmacists and would also enhance overall drug therapy:

(...) as provinces develop primary health care reform, they should look at ways to integrate pharmacists into the proposed models for primary health care delivery. Such models should be designed to make maximum use of the consultative services pharmacists can provide to optimize drug therapy.⁶²

Witnesses also commented on the importance of using information to reduce waste resulting from inappropriate prescribing and use of drugs. The Committee heard that Canada lacks comprehensive drug use and cost information. Evaluating the quality of drug use was seen as a priority. Ms. Barbara Ouellet, Director, Home Care and Pharmaceuticals Division (Health Canada), pointed out that:

Canada does not have good, comprehensive drug use and cost information, which in and of itself is a barrier to any analysis, including analysis of some of the policy directions or potential implications of policy directions. Canadians are also seeking authoritative, evidence-based, patient-oriented information provided when their prescriptions are written or dispensed.⁶³

Dr. Poston called for research that critically evaluates the quality of drug use:

There has been a strong focus on drug costs, but little on the quality of drug use. It is through improving the quality of drug use that true savings will be found, both in costs and human life. Evaluation research should focus on the value of interventions developed to improve the quality of drug use.⁶⁴

2.4 Who Pays for Drugs in Canada?

Most Canadians have some form of insurance coverage for prescription drugs from one source or another. They receive drug coverage from government programs, private plans through their employers, and individual plans (see Table 2.4). Information provided to the Committee by the Canadian Life and Health Insurance Association (CLHIA) suggests that about 97% of the Canadian population is protected by some form of prescription drug insurance. Estimates by the CLHIA also show that:

⁶¹ Dr. Jeffrey Poston (4:11-12).

⁶² *Ibid.* (4:13).

⁶³ Ms. Barbara Ouellet (4:20).

⁶⁴ Dr. Jeffrey Poston (4:13).

- employer-sponsored group plans are the primary source of insurance for Canadians, providing coverage to 57% of the population;
- individual drug insurance companies cover another 3% of the population;
- the two major public prescription drug insurance plans for seniors and social assistance recipients contribute 12% and 10% respectively to the total;
- provincial programs for the general population (i.e. not limited to seniors or social assistance recipients) cover another 15% of the population;
- programs for status Indians and eligible Inuit and Innu account for about 2% of the coverage;
- various other plans (individual policies, affinity groups, etc.) account for a further 1%;
- some 3% of the Canadian population appear to have no insurance coverage at all for prescription drugs.⁶⁵

TABLE 2.4
TYPES OF PLANS

PRIVATE PLANS	GOVERNMENT PLANS
▪ Employment benefit plans ▪ Individual insurance policies ▪ Affinity-related group plans	▪ Registered Indians, eligible Inuit and Innu ▪ Veterans ▪ Seniors ▪ Social assistance recipients ▪ Institutionalized individuals (health related and Corrections) ▪ Universal programs open to all residents

Source: *Canadians' Access to Insurance for Prescription Medicines*, Executive Summary, Applied Management in Association with Fraser Group Trisat Resources, Study submitted to Health Canada under the Health Transition Fund, March 2000.

Because the *Canada Health Act* does not include prescription drugs used outside the hospital setting, public coverage varies considerably from province to province. Similarly, private insurance for prescription drugs provided through employer-sponsored plans or individual insurance companies exhibit significant differences in terms of design, eligibility and out-of-pocket costs.

For example, there are wide variations in public prescription drugs insurance plans:⁶⁶

⁶⁵ Canadian Life and Health Insurance Association, *Drug Expense Insurance in the Canadian Population*, 1998.

⁶⁶ The summary description of government and private plans has been taken from information contained in the study *Canadians' Access to Insurance for Prescription Medicines*, Applied Management in Association with Fraser Group, Trisat Resources, Study submitted to Health Canada under the Health Transition Fund, March 2000.

- The federal government provides drug plan benefits to registered Indians and eligible Inuit and Innu under the Non-Insured Health Benefits program for medication not covered by provincial or territorial government plans.
- Veterans Affairs Canada provides drug plan coverage for certain eligible veterans.
- Members of the armed forces and their families receive drug coverage from the federal government, as do prisoners in federal correctional institutions. Provincial governments provide drugs to prisoners in provincial institutions.
- Some provinces have universal programs (British Columbia, Saskatchewan and Manitoba cover all residents; Quebec covers residents without employer-sponsored drug plans; Ontario has an income-tested program to cover individuals with high drug costs relative to income).
- All provinces and territories cover social assistance recipients and seniors under Pharmacare programs although some provide coverage to low-income seniors only.
- Individuals with certain high-cost diseases are covered in all provinces (for example, people with diabetes, HIV/AIDS, cancer, cystic fibrosis).
- Nursing home and long-term care facility residents obtain drug benefits through provincial drug plans or through funding for the operation of the home or facility.
- Some provincial drug plans charge premiums. Most do not. Others have deductibles (an amount that individuals must pay before being eligible for reimbursement). Most provincial government plans require plan beneficiaries to pay a portion of the prescription costs after the deductible is reached (co-payment). Many plans limit the total amount individuals are required to pay in co-payments and deductibles.
- Provincial and territorial drug plans have adopted formularies – a list of drugs that the plan will pay for.

Most large employers and many small employers offer employee benefit plans that include drug coverage. A number of the larger employers also cover retirees. Self-employed individuals can also purchase individual drug plan coverage. Employers usually pay the premium costs under most employer-sponsored plans but employees may also be required to contribute: the split between plans requiring employees to pay a premium and those that do not is about 50/50. Many private plans do not have deductibles and those that do impose relatively low deductible amounts. Beneficiary co-payments are a feature of many private plans (usually 20%), but a number of plans make no provision for co-payments.

The public/private mix of prescription drug coverage varies widely across Canada. Data from IMS Health (Canada) shows that public insurance covers only 31% of the cost of prescription drugs in Newfoundland and New Brunswick, while governments are responsible for over 60% of prescription drug costs in Saskatchewan, Quebec and Manitoba (see

Table 2.5). Overall, residents of the Atlantic Provinces have less public coverage for prescription drugs than residents of other parts of Canada.

TABLE 2.5
WHO PAYS FOR PRESCRIPTION DRUGS

JURISDICTION	GOVERNMENT PERCENTAGE	CASH/PRIVATE SECTOR PERCENTAGE
British Colombia	40.9%	59.1%
Alberta	45.5%	54.5%
Saskatchewan	66.1%	33.9%
Manitoba	62.2%	37.8%
Ontario	42.8%	57.2%
Quebec	62.2%	39.8%
New Brunswick	31.1%	68.9%
Nova Scotia	33.3%	66.7%
Newfoundland	31.1%	68.9%

Source IMS Health (Canada)

2.5 Do Some Canadians Have Better Coverage for Drug Costs than Others?

The Health Transition Fund (Health Canada) funded a study to examine the range and extent of government and private prescription drug plans and to assess measures of under-insurance in Canada. A copy of this comprehensive study, which is entitled *Canadians' Access to Insurance for Prescription Medicines*, was provided to the Committee.⁶⁷

Perhaps the most striking conclusions from the study are the substantial regional variations in who is eligible for coverage and the reimbursement levels under government drug plans. The study also reveals that a substantial number of people have inadequate coverage or no coverage at all. Part-time and low-income workers are particularly vulnerable because they do not qualify for government plan coverage and do not have access to an employee benefits plan. Overall, the study came to the following conclusions:⁶⁸

- Ninety-three percent of Canadians have a combination of public and private drug insurance plans to provide protection against serious financial hardship in the event that expensive drug treatment is required. Approximately 4 percent of the population would be considered under-insured because their coverage would reimburse only a portion of their bills while 3 percent are uninsured.

⁶⁷ *Canadians' Access to Insurance for Prescription Medicines*, Executive Summary Applied Management in Association with Fraser Group Trisat Resources, Study submitted to Health Canada under the Health Transition Fund, March 2000.

⁶⁸ These conclusions are summarized in the study's Executive Summary.

- Residents of the Atlantic Provinces, other than seniors and social assistance recipients and those in employer-sponsored group programs have no protection against catastrophic levels of drug expense.
- In all provinces, except Quebec, workers in part-time or low-wage positions are more likely to be uninsured or underinsured for routine drug expenses compared to the general population under age 65 because there is little to no coverage under employer-sponsored group plans.
- In all provinces, except Quebec, there is reduced coverage in the 55-64 age group.
- Of the Aboriginal population, registered Indians or eligible Inuit and Innu have good coverage under Health Canada's Non-Insured Health Benefits program. Métis and Non Status Indians, on the other hand, are more likely to be under-insured or uninsured than the non-Aboriginal population.
- Therefore, the strongest determinant of whether an individual will have adequate coverage against catastrophic (high) drug expenses is province of residence. While many individuals, especially seniors, have protection against catastrophic expenses under government plans, non-seniors residing in provinces or territories without universal government programs can face a significant financial burden if they do not have private drug plan coverage through their employers.

Another study that was tabled before the Committee assessed the recent changes to the Quebec prescription drug plan and the effect of co-payment on drug consumption.⁶⁹ In 1996, Quebec made drug insurance mandatory. As a result, previously uninsured individuals were given access to a prescription drug plan. The new drug plan required beneficiaries to pay a portion of their prescription costs. This differed from the previous plan under which many beneficiaries – particularly social security recipients and seniors entitled to the Guaranteed Income Supplement – received prescription drugs free. The Quebec study found that seniors and social security recipients significantly reduced their drug consumption. This decline in consumption applied to both essential and non-essential drugs. The study also reported increases in the number of adverse events, emergency room visits, and visits to doctors attributable to the reduction in consumption of essential drugs.⁷⁰

A number of witnesses raised concern about patient access to drug therapy especially in light of recent changes to public drugs plans that impose higher co-payments and deductibles. In their view, if certain patients have to bear all or a portion of the cost of their prescriptions, they will forego essential drug therapy. They

Two-tier health care is alive and well. First estimates vary, but approximately 3 million Canadians have no drug coverage, and probably another 3 million or more have inadequate coverage because of the high deductibles and co-payments that were introduced in many public plans in the 1990s.

Dr. Jeffrey Poston (4:12)

⁶⁹ Robyn Tamblyn, *et al.*, *Evaluation Report of the Impact of Prescription Drug Insurance Plan*, Summary, March 1999.

⁷⁰ *Ibid.*, p. 22.

stressed that many Canadians have inadequate drug coverage or no coverage at all and cannot afford the drugs prescribed for them. This, of course, has important cost and service implications for other areas of the health care system. For example, Dr. Coombs observed:

(...) if you raise the price or make the drug less accessible, people will fill scripts less, renew the scripts less, and use other health care resources more. They will drive up your hospitalization charges if you deny them the drugs. ...Economics is a barrier and other access issues are also a barrier.⁷¹

A number of witnesses recommended that the federal government develop, in collaboration with the provinces, a national Pharmacare plan. There is no single model for a pan-Canadian Pharmacare, and a number of complex issues can influence their design. These include deciding who should be covered (e.g., everyone, specific groups of the population such as seniors or social assistance recipients, etc.), what is covered (e.g., all prescriptions, specific categories of prescriptions, etc.), and how it should be financed (e.g., public financing only or a mix of public and private funding with deductibles, co-payments, etc.). Witnesses indicated that if user charges were required under Pharmacare, they should be minimal; they should not place an undue burden on patients.

Furthermore, there is considerable controversy concerning the costs of setting up a national Pharmacare program and of ensuring its long-term viability. In 1997, Palmer d'Angelo Consulting Inc. estimated the cost of funding several models of national Pharmacare. Here is a summary of the major findings of this study:

- A fully funded, comprehensive, publicly administered, national Pharmacare plan would increase public expenditures on prescription drugs by an estimated \$4.3 billion.
- Other publicly administered plans would increase public expenditures by \$2.1-\$2.5 billion with patients paying co-payments or the dispensing fee. These plans would in essence "nationalize" current private plans.
- With a national Pharmacare plan similar to the drug plans that exist in Saskatchewan and Manitoba, public expenditures would fall by almost \$0.5 billion. However, expenditures by individuals would increase by \$0.9 billion.
- The impact on the public purse of the mixed public/private plans is considerably less than the public only plans. The incremental increase in expenditures range from \$0.1 billion with a plan similar to that currently in Quebec, to \$1.5 billion for a plan that provides true first dollar coverage.⁷²

Clearly, the cost of funding a national Pharmacare program would vary according to how it is designed. A recent study by Dr. Joel Lexchin suggested that although such a system would increase public spending, it would nonetheless save money by reducing administrative

⁷¹ Dr Robert Coombs (4:21).

⁷² Palmer d'Angelo Consulting Inc., *National Pharmacare Cost Impact Study*, September 1997.

costs and dispensing fees.⁷³ The impact of a national Pharmacare program on drug prices is also unclear. For example, international experience with national Pharmacare programs shows that drug costs continue to grow at a rate of 8% annually.

The Committee was told that the idea of a common drug formulary was being discussed at the provincial and territorial level. More specifically, following their conference in August 2000, Provincial Premiers and Territorial Leaders agreed to work together and "mandated their Health Ministers to develop strategies for assessing and evaluating prescription drugs. These strategies could include the creation of a common inter-provincial/territorial advisory process to assess drugs for potential inclusion in provincial/territorial drug plans."⁷⁴ However, the Committee was told that provinces might resist the development of a national drug formulary:

With respect to Pharmacare, a fairly broad proposal was made to governments in the early 1990s that included aspects of what we are talking about here, including national formularies. The issue for the provinces is that they are trying to manage their own resources in ways that best meet the needs of their own populations. That may mean, for example, that if they have a high senior population, then there will be certain demands for access to pharmaceuticals for that population. If they have a high proportion of AIDS patients, then they will need to deal with those needs as well. They are desperately trying to ensure that the drugs they list are appropriate for their citizens. In fact, as some drugs lose their effectiveness and better ones become available, can they actually be removed from the formularies? I would say that there is currently no desire or will to talk about one national formulary because of the need to respond flexibly to their own population needs, which they argue would differ.⁷⁵

2.6 Committee Commentary

In recent years, there has been a marked increase in drug spending. The evidence suggests that the growth in drug costs has been driven largely by increased utilization of drugs and a shift from older, less-expensive medications to newer, costlier forms of drug therapy, but less so by price increases. Witnesses told the Committee that they expect drug spending to take up an even larger portion of health care dollars in the future.

There is also increasing evidence of inappropriate prescribing and use of medicines. Patient non-compliance with prescribed drug regimens and early discontinuance of medications for chronic conditions is estimated to be as high as 50%. Inappropriate drug therapy is costly to the Canadian health care system. In the opinion of the Committee, it is critical to address the issue of inappropriate drug therapy. We agree with witnesses that pharmacists can play a crucial role in primary care reform and that better integration of the work

⁷³ Dr. Joel Lexchin, *A National Pharmacare Plan: Combining Efficiency and Equity*, Canadian Centre for Policy Alternatives, March 2001.

⁷⁴ 41st Annual Premiers' Conference, "Premiers' Commitment to their Citizens," *News Release*, Winnipeg, 11 August 2000 (also available at http://www.scics.gc.ca/cinfo00/850080017_e.html).

⁷⁵ Barbara Ouellet (4:41).

of physicians with that of pharmacists can greatly reduce the economic burden of inappropriate drug prescribing and use. The Committee also believes that the implementation of health information systems could greatly improve information on prescribing and using medicines. The development of PharmaNet in British Columbia, for example, deserves attention as it provide pharmacists with a complete record of drugs prescribed to each resident of the province.

Furthermore, the Committee received evidence that Canadians do not have uniform coverage for prescription drugs. Some Canadians have no coverage at all, while others are clearly under-insured. Lack of coverage for prescription drugs and under-coverage are of particular concern for residents of the Atlantic provinces. The Committee strongly feels that prescription drugs should be easily available when they are medically necessary.

There is, at the moment, no definite consensus regarding the development of a national Pharmacare program. A variety of models can be envisioned each of which raises multiple issues. For example, should a national Pharmacare plan meet all the conditions of the *Canada Health Act*? Should a national Pharmacare plan be established along with a national drug formulary or with existing individual provincial formularies? How would the plan be financed – public funding only, public/private mix, with co-payments and deductibles? Where would the public funding come from – general taxation, employer/employee premiums, a dedicated health care tax, etc.?

In Phase Four of its study, the Committee will outline options for addressing these various issues.

CHAPTER THREE:

HEALTH CARE TECHNOLOGY

"Health care technology" is a very broad concept that can be defined as "the set of techniques, drugs, equipment, and procedures used by health care professionals in delivering medical care to individuals and the systems within which such care is delivered."⁷⁶ David Feeny, professor of Pharmacy and Pharmaceutical Sciences at the University of Alberta, told the Committee that the concept of health care technology includes both embodied and disembodied technologies. An embodied technology is one that is "contained" or captured in the physical artefact itself. In contrast, disembodied technologies are ideas or procedures that do not involve a tangible product or piece of equipment.⁷⁷ Table 3.1 provides selected examples of health care technologies.

TABLE 3.1
EXAMPLES OF HEALTH CARE TECHNOLOGY

EMBODIED TECHNOLOGY	<i>Devices, Equipment and Supplies:</i> ☐☐ Cardiac pacemakers, computed tomography (CT) scanners and magnetic resonance imagers (MRIs), surgical gloves, diagnostic test kits, etc.
	<i>Medical and Surgical Techniques:</i> ☐☐ Coronary angiography, gall bladder removal, etc.
	<i>Drugs:</i> ☐☐ Aspirin, beta-blockers, penicillin, vaccines, blood products, etc.
	<i>Support Systems:</i> ☐☐ Electronic patient record systems, telemedicine systems, blood banks, clinical laboratories, etc.
DISEMBODIED TECHNOLOGY	<i>Procedures:</i> ☐☐ Pap smear test
	<i>Ideas:</i> ☐☐ Early ambulation following surgery, washing hands between patients, etc.

The Committee heard that health care technologies have lifecycles: some are well-established while others are in the early stages of development; still others have become obsolete. Innovative technologies today move increasingly quickly from the research laboratory to the health care sector. As a result, rapid innovation is contributing to faster obsolescence of health care technologies.

⁷⁶ David Feeny, *The Generation, Evaluation and Application of Health Care Technologies in Canada*. Brief to the Committee, 29 March 2001, p. 5.

⁷⁷ Experts often include the innovative ways to finance, organize and provide health care under the category of disembodied health care technology.

The Committee was also told that Canada does not play a leading role in the development of health care technology. In fact, 70 percent of health care technologies currently used in Canada were developed abroad.

Everybody agrees that health care technology constitutes an important component of health care delivery in advanced countries. Health care technology can improve the speed and accuracy of diagnosis, cure disease, lengthen survival, alleviate pain, facilitate rehabilitation, and maintain independence. However, many concerns have been raised in Canada about the availability, assessment and cost of both new and existing health care technologies. The Committee was told that these issues need to be addressed if Canadians are to derive the maximum benefits health care technology can provide, while sustaining an affordable health care system.

Although the definition of health care technology does encompass drugs, this chapter will discuss issues related to "hard" technologies only. Issues related to drugs are the subject of the previous chapter.

3.1 Availability Of Health Care Technology

A recent study by the Fraser Institute shows that although Canada is the 5th highest among OECD (Organization for Economic Cooperation and Development) countries in terms of total spending on health care (as a percentage of GDP), it is generally among the bottom third of OECD countries in the availability of health care technology (see Table 3.2). For example, Canada ranks 21st of 28 OECD countries in the availability of CT scanners, 19th of 22 in availability of lithotriptors, and 19th of 27 in availability of MRIs. Its only favourable ranking is in the availability of radiation equipment, where it ranks 6th out of 17. The study also reveals that this technology gap is widening. For example, Canada's deficit in the availability of MRIs worsened between 1986 and 1995 relative to other leading OECD countries including Australia, France, the Netherlands and the United States. In other words, Canada's levels of health care technology are disproportionately low given its level of health care spending.

TABLE 3.2
AVAILABILITY OF HEALTH CARE TECHNOLOGY
INTERNATIONAL COMPARISONS, 1997
(NUMBER PER MILLION POPULATION)

	Canada	United States	United Kingdom	France
<i>CT Scanners</i>	8.1	12.9	21	28
<i>Radiation Equipment</i>	5.3	4.2	6	17
<i>Lithotriptors</i>	0.4	1.4	19	22
<i>MRIs</i>	1.7	3.9	19	27
<i>Health Care Spending as a % of GDP</i>	9.3	7.7	5	29

Note: Data is not available for some countries for some technologies.

Source: David Harriman, William McArthur and Martin Zelder, "The Availability of Medical Technology in Canada: An International Comparative Study." *Public Policy Sources*, No. 28, 2000.

The Fraser Institute study also indicates that Canada lags behind its competitors in terms of the more advanced health care technology. For example, 18 leading-edge technologies - including intraoperative CT scanners and "open" type MRIs - are available in Washington and Oregon, but unavailable in the province of British Columbia.

According to the study, the low availability of health care technology in Canada has translated into limited access to care and lengthened waiting times. For example, waiting times for CT, MRI and ultrasound scans are relatively long and are growing. In particular, the current waiting time for an MRI is 12 weeks and 5 weeks for a CT scan. Overall, waiting times have grown by more than 40% since 1994.

Availability is not the only issue with respect to health care technology. The "aging" of that technology is also of concern. For example, information provided to the Committee indicates that between 30% to 63% of imaging technology currently used in Canada is outdated (see Table 3.3). The outdated nature of the health care technology depends on both the number of years in usage and the relative effectiveness of the equipment in terms, for example, of the quality of the image or the dose of radiation.

Many of our standard x-ray machines and other machines in the hospitals are functionally inadequate at this point because they are simply too old to do the job for which they were designed. It has become quite common to see duct tape holding our equipment together. It has become a joke amongst us. You see this in the press, but it is true. I have seen it in my own hospitals and my own area of work.

*Dr. John Radomsky, president
CAR (5:7)*

TABLE 3.3
OUTDATED RADIOLOGY EQUIPMENT

EQUIPMENT TYPE	PERCENTAGE OF OUTDATED EQUIPMENT
<i>General radiography</i>	63%
<i>Fluoroscopy</i>	63%
<i>Ultrasonography</i>	53%
<i>Angiography</i>	50%
<i>Mobile radiography</i>	50%
<i>CT</i>	39%
<i>Nuclear medicine</i>	34%
<i>Mammography</i>	32%
<i>MRI</i>	30%

Source: Canadian Association of Radiologists, *Timely Access to Quality Care - the Obligation of Government, the Right of Canadians*, Brief to the Committee, March 2001, p. 4.

The Committee was told that the shortage of new technology and the use of outdated equipment impede exact diagnosis and inhibit high quality treatment. This situation, which can negatively impact on the health of a patient, also raises concerns about the liability of the health care providers. When he appeared before the Committee, Dr. John Radomsky, president of the Canadian Association of Radiologists (CAR), provided the following example:

Several machines in one of our hospitals are approximately eight to ten years old. They were once state-of-the-art machines. They are maintained to that standard. However, when I find a breast cancer with my newer ultrasound machine in the office, I cannot find that same cancer with the eight-year-old machine in the hospital. Therefore, I cannot perform a biopsy on it. We have to use some other test or send the patient to some other facility, thereby increasing the cost, the anxiety, as well as inconvenience of the patient.(...) There is the potential to miss something that will be hazardous to the patient, and that puts us in an untenable position.⁷⁸

It is not clear why Canada is not introducing and making use of health care technologies at the same pace as other OECD countries and why it does not routinely replace aging equipment. Indeed, many factors seem to contribute to this situation:

- On the one hand, Canada imports most of its health care technology. This contrasts sharply with countries such as Germany, France and the United States which have a strong health care technology industry. It may be easier and less costly to purchase new equipment from a domestic manufacturer than from an offshore supplier.
- On the other hand, investment in health care necessarily implies that trade-offs have to be made between health care technology and other health care goods and services. For example, while Canada is far behind other countries in terms of the availability of "hard" technology, if we include drugs in the definition of technology, then Canada does not do so poorly. Therefore, we might invest relatively less in health care technology, but relatively more in other health care goods and services.
- Moreover, the process for assessing health care technology is separated from the decision-making process for purchasing such technology. It is difficult for assessment agencies to have any influence on the purchase of health care technologies when the decisions are made at other levels of the health care system.
- But most importantly, fiscal pressures faced by all levels of government throughout the 1990s have resulted in low levels of capital investment in Canada's health care system.

The federal government is well aware of the deficit in health care technology. In September 2000, it announced that it would invest a total of \$1 billion in 2000-01 and 2001-02, to assist provinces and territories in the purchasing of new medical equipment. This funding was made available upon passage of the legislation in October 2000, allowing provinces and territories to start making immediate acquisitions of necessary diagnostic and clinical equipment. Although the medical community has welcomed this injection of new federal funds, a number of concerns remain:

- Some provinces have not applied for their share of this fund, possibly because the federal government requires matching grants.

⁷⁸ Dr. John Radomsky, CAR (5:32).

- There is no apparent accountability within the provinces as to exactly where that money is going to be spent.
- This funding is not distributed equitably among health care facilities. For example, CAR told the Committee that all federal government funding in the province of Ontario is being directed toward hospitals, although approximately 50% of all radiology testing is conducted outside of the hospital sector, by community-based independent health care facilities.
- Additional resources are required to operate the equipment. CAR estimates that a \$1 billion investment in new equipment necessitates some \$700 million to cover operational costs.
- This investment does not address the problem of the old equipment that needs to be upgraded. According to the CAR, this would require an additional \$1 billion investment.
- This new funding does not enable Canada to rank at a level comparable to that of the other OECD countries.
- Finally, this funding is not subject to any requirement for health care technology assessment.

The Committee was told that the aging of the Canadian population as well as increased public expectations will have a great impact on the future needs for health care technology. Overall, witnesses suggested that the current deficit in health care technology requires a serious re-evaluation of the way in which equipment is supplied, funded and provided in Canada. They also stressed that health care policy-makers must forecast future needs and develop an appropriate plan for action.

Witnesses underlined, however, that providing the health care sector with all the technology it needs would not solve all the problems because there is not an appropriate level of professionals to operate that equipment. In their view, there is a need to increase the number of professionals, retain those that we have and bring back some of the people who went to the United States or other countries. This issue is discussed in more detail in Chapter Six, which deals with the availability and distribution of human resources in health care.

The recent influx of new health care funding from the federal government has been welcomed by provincial payers, as well as those working in the system. However, it also means that it is important now, perhaps more than ever, to pay attention to how these funds are spent, by using an approach that is based on closely examining the evidence behind the many products and services competing for the public health care dollar.

CCOHTA, Brief, p. 4.

As the proportion of elderly people increases, the demand for imaging procedures likely will also increase. As many diseases are more prevalent in the elderly, more medical imaging procedures, per capita, are performed on adults than on children; on older rather than younger adults.

CAR, Brief, p. 8.

3.2 Health Care Technology Assessment

Technology assessment refers to the production and analysis of evidence on the safety, clinical effectiveness and economic efficiency of health care technologies. Health care technology assessment (HTA) often also considers the social, legal and ethical implications of the use of health care technologies. HTA can be undertaken at various stages of a technology's lifecycle. HTA contributes in many ways to the knowledge base for improving the quality of health care: it can ensure that health care technologies are effective, that they are applied in the appropriate cases and conditions, and that the least costly technology is used to achieve a particular outcome. Moreover, HTA can assist in deciding whether a new technology should be introduced or when an existing technology should be replaced.

Health Technology Assessment (HTA) is the process of evaluating medical technologies (devices, equipment, procedures and drugs) and their use. HTA researchers collect, synthesize and critically evaluate the available research on medical technologies. Based on an interdisciplinary approach, an assessment can encompass analyses of safety, efficacy, effectiveness, quality of life and patient use. Other important factors such as economic, ethical, and social implications and other effects which may be unintended, indirect or delayed, may also be considered.

CCOHTA, Brief, p. 2.

In recent years, the federal and provincial governments have supported the creation of various health care technology assessment agencies. The first provincial HTA agency in Canada was established in 1988 in Quebec – the *Conseil d'évaluation des technologies de la santé du Québec*. A national agency, the Canadian Coordinating Office for Health Technology Assessment (CCOHTA) was established in 1989. The British Columbia Office of Health Technology Assessment was established in 1990. The Health Technology Assessment unit of the Alberta Heritage Foundation for Medical Research was established in 1996. Health services utilization agencies, with close links to their respective provincial governments, which undertake some HTA activities, have been formed in Manitoba, Ontario and Saskatchewan. At the national level, CCOHTA plays a role of coordination of all HTA activities across jurisdictions, and it attempts to minimize duplication with other national and provincial organizations.

The Committee was told that, despite the work performed by these agencies, not enough attention is devoted to HTA in Canada. On a worldwide basis, Canada spends less in HTA activities than other countries. Dr. Jill Sanders, president and CEO of the CCOHTA, mentioned that while CCOHTA invests some \$4.3 million, with some additional funding from provincial governments (about another \$3 million), the United Kingdom provides some \$100 million. Therefore, health care technologies are often introduced into Canada's health care system with only superficial knowledge of their safety, effectiveness and cost.

David Feeny⁷⁹ told the Committee that, while the volume and scope of HTA in Canada has increased in recent years, the reports generated by the HTA agencies rely heavily upon the synthesis of existing evidence. In his view, these agencies have lacked the resources to fund large-scale studies and, in particular, to conduct randomized controlled clinical trials. Furthermore, the social and ethical implications of health care technologies have received relatively little attention in the work of Canadian agencies.

⁷⁹ David Feeny, Brief to the Committee, pp. 5-6.

Professor Feeny also argued that if the goal of the health care system is to maintain and improve the health status of Canadians, then more needs to be done in assessing how health care technology can have an impact on health-related quality of life (HRQL). He suggested that the increased use of outcome measures such as HRQL would have the potential to enhance substantially the accountability and transparency of the health care system.

Martin Zelder, Director of Health Policy Research at the Fraser Institute, suggested that Canada should use the results of HTA undertaken offshore. Other witnesses cautioned, however, that we cannot simply translate the results of HTA studies realized elsewhere. The application of foreign research is complicated by certain factors such as differences in demography and patterns of disease, differences in the costs of various health care resources, and differences in patterns of practice.

According to Dr. Radomsky, HTA in Canada remains in the realm of academia and government, and it does not filter down to the grassroots users. In his view, health care providers need to work with experts in HTA to develop clinical practice guidelines that will allow them to use the equipment more efficiently and effectively. Therefore, there is a need for more collaboration and multidisciplinary work. In the same vein, Dr. Sanders suggested that decision-makers be involved in the design, execution, and interpretation of evaluative studies and HTA activities. This would help getting the evidence gained from HTA activity into the formulation of public policy with respect to health and health care.

If governments are not assisted with information regarding the relative safety and efficacy of competing treatment alternatives that may vary widely in cost, there is a great potential for taxpayer dollars to not be used appropriately.

CCOHTA, Brief, p. 3.

Overall, witnesses pointed to the importance of investing more in HTA and stressed the need to increase the awareness and thus the use of HTA findings.

3.3 Impact On Health Care Costs

In terms of spending and effectiveness, there are four different ways that health care technologies can have an impact on the provision of health care. In general, a technology can be: 1) *more* effective and *more* expensive; 2) *more* effective and *less* expensive; 3) *less* effective and *less* expensive; 4) *less* effective and *more* expensive.⁸⁰ Unfortunately, however, the Committee was told that the precise contribution of technology to the costs of health care in Canada is not known. Attempts to quantify the connection between technology and rising health care expenditures have suffered from a lack of reliable data. The majority of studies to date have treated technology as a "residual" item, attributing to technology that portion of the increase in health care spending not accounted for by more easily identifiable factors.⁸¹

⁸⁰ British Columbia Medical Association, *Turning the Tide – Saving Medicare for Canadians*, Part I of II: Laying the Foundation for Sustaining Medicare, Background Paper, July 2000, pp. 31-34.

⁸¹ Konrad Fassbender and Melinda Connolly, *An Empirical Review of Health Expenditures and Technology – Part 2 of 5: Literature Review*, Institute of Health Economics, University of Alberta, Working Paper Series no. 00-08, 2000 (<http://www.ipe.ab.ca>).

Therefore, we do not know how much Canada spends on health care technology nor do we know how health care technology has an impact on the health and quality of life of Canadians. It is not possible to know whether the cost of health care technology represents an "add-on" or whether it is offset by reductions in the actual costs of the treatments they permit. Witnesses unanimously pointed to the need to undertake research in this area.

3.4 Committee Commentary

The Committee is concerned by the shortage in health care technology and the impact this might have on waiting lines. In our view, timely access to diagnosis and treatment is a crucial objective that must be ensured in Canada's health care system. In this perspective, we applaud the investment by the federal government to help the provinces and territories in the financing of new medical equipment. It is our hope that the various concerns raised during the hearings regarding the use of these new funds be addressed in a timely manner.

Nevertheless, the Committee agrees with witnesses that technology assessment is a critical activity and that more HTA needs to be undertaken when considering the introduction of a new technology or the replacement of existing medical equipment. The Committee is also aware that there is currently an under-production of relevant and timely information on the costs and consequences of the use of health care technologies and that more research in this area would greatly benefit the whole health care system. The federal government, through its role in financing innovative health research, should devote more funding to the assessment of new and existing health care technologies.

CHAPTER FOUR:

DISEASE TRENDS

The 20th century revolution in health care has significantly altered the pattern of diseases, with the causes of mortality shifting away from infectious diseases and towards non-communicable diseases. Chronic diseases, such as cancer and cardiovascular disease, are now the leading causes of death and disability in Canada, while accidental injuries are the third most common cause of death. However, some infectious diseases once thought to have been conquered – such as tuberculosis – are re-emerging and antibiotics are becoming increasingly ineffective against them. Rapid international transport of foods and people also increases the opportunities for the spread of infectious diseases.

The incidence of illness and trends in diseases greatly differs between men and women and within sub-populations such as Aboriginal peoples, children and youth, as well as between different socio-economic groups. The economic burden of disease is significant and must be seen to include not only direct health care costs, but also lost productivity and lower quality of life.

There are concerns that new diseases and increasingly prevalent illnesses may have a significant impact on the current and future costs of health care. However, many of the causes of disease, disability and early death are preventable. It has been suggested that increasing efforts in the area of health promotion and disease prevention, with a particular focus on Canadians with low incomes and low levels of education, must remain key areas in public policy if we are to improve overall health status and contain health care costs.

4.1 Trends In Diseases

The leading causes of death have changed dramatically over the 20th century (see Table 4.1). In the early 1920s, heart and kidney diseases were the leading causes of death. The next most common causes were influenza, bronchitis and pneumonia, followed by diseases of early infancy. Tuberculosis took more lives than cancer. Intestinal illnesses such as gastritis, enteritis and colitis, and communicable diseases such as diphtheria, measles, whooping cough and scarlet fever, were also among the leading causes of death.

TABLE 4.1:
LEADING CAUSES OF DEATH
(RATE PER 100,000)

1921-25	
Cardiovascular and renal disease	221.9
Influenza, bronchitis and pneumonia	141.1
Diseases of early infancy	111.0
Tuberculosis	85.1
Cancer	75.9
Gastritis, duodenitis, enteritis and colitis	72.2
Accidents	51.5
Communicable diseases	47.1
ALL CAUSES	1,030.0
1996-97	
Cardiovascular diseases (heart disease and stroke)	240.2
Cancer	184.8
Chronic obstructive pulmonary diseases	28.4
Unintentional injuries	27.7
Pneumonia and influenza	22.1
Diabetes mellitus	16.7
Hereditary and degenerative diseases of the central nervous system	14.7
Diseases of the arteries, arterioles and capillaries	14.3
ALL CAUSES	654.4

Nota: Disease categories not identical over time. Rates in 1996-97 are age-standardized. Source: Susan Crompton, "100 Years of Health," *Canadian Social Trends*, Statistics Canada, Catalogue 11-008, No. 59, Winter 2000, p. 13.

Public health programs, combined with the large-scale introduction of vaccines and antibiotics, have led to a major shift in the pattern of diseases. Today, although cardiovascular disease remains the leading cause of death among Canadians, its impact on mortality has declined dramatically over the past 70 years, probably reflecting changes in lifestyles (reduced levels of smoking, lower-fat diets, more exercise) and improvements in treatment (new drugs and improved medical/surgical techniques). In contrast, cancer has become the second cause of death in Canada, compared to fifth in 1921.

4.1.1 Infectious Diseases

Dr. Paul Gully, Acting Director General at the Centre for Infectious Disease Prevention and Control (Health Canada), told the Committee that although some infectious diseases have been controlled or virtually cured, many infectious diseases persist. Indeed, he stated that: "since 1980, the death rate from infectious diseases in Canada has increased."⁸²

⁸² Dr. Paul R. Gully, *Infectious disease trends in Canada*, Brief to the Committee, 4 April 2001, p. 2.

Infectious diseases are a significant economic burden, costing more than \$6 billion annually in 1998.⁸³ Dr. Gully pointed to seven infectious disease trends that threaten Canadians:

- Many infectious diseases, such as AIDS and hepatitis C, persist;
- There are new and emerging disease threats, including mad cow disease and E. coli, as well as the West Nile Virus infection;
- Global travel and migration can introduce new diseases into the population;
- Environmental changes, such as global warming, deforestation, and tainted water, may cause infections, such as Lyme disease;
- Behavioural changes, particularly high-risk sexual practices and drug use, can spread HIV and other diseases;
- Resistance to immunization could cause a resurgence in polio and measles, for example; and
- Anti-microbial resistance may reduce the effectiveness of traditional curative measures.⁸⁴

4.1.2 Chronic Diseases

According to the National Population Health Survey, in 1998-99, more than half of all Canadians, or 16 million, reported having a chronic condition. The most prevalent conditions were allergies, asthma, arthritis, back problems, and high blood pressure.⁸⁵ In a written brief to the Committee, Dr. David MacLean, Department Head, Community and Epidemiology, Dalhousie University, noted:

*Chronic non-communicable diseases are the major health burden today in developed countries like Canada. They are by far the most important cause of all mortality, premature mortality, morbidity, and years of potential life years lost in Canada. They are the leading causes of disability, loss of productivity, and deterioration in the quality of life.*⁸⁶

Cardiovascular disease is the major cause of death in Canada, accounting for 37% of all deaths. Mortality from cardiovascular disease has been declining in Canada since 1970 among both men and women, although more slowly in women. Cancer in its many forms is the second-leading cause of death and the leading cause of potential years of life lost before age 70 (over one-third of all potential years of life lost). Cancer is primarily a disease of older Canadians, with 70% of new cancer cases and 82% of deaths due to cancer occurring among those who are at least 60 years old. Cancer death rates have declined slowly for men since 1990, while they have remained relatively stable among women over the same period. However, lung cancer rates for women are now four times higher than they were in 1971.

⁸³ Dr. Paul Gully, Brief, p. 5.

⁸⁴ Dr. Paul Gully (6:10-11).

⁸⁵ Dr. Christina Mills, *Chronic Diseases and Injuries in Canada*, Brief to the Committee, 4 April 2001, p. 4.

⁸⁶ Dr. David MacLean, *Addressing the Burden of Chronic Disease in Canada*, Brief to the Committee, 3 April 2001, p. 1.

Witnesses identified some of the factors that are affecting the incidence of chronic disease. More precisely, poor diet, lack of exercise, smoking, stress, excessive alcohol intake, and obesity were all identified as chronic disease risk factors. Dr. MacLean suggested that most chronic diseases - such as cancers, heart disease, diabetes, and respiratory disease - are "entirely preventable" and, moreover, that the social and biological determinants of chronic diseases "can be manipulated."⁸⁷ In his view, however, there is a tendency to focus on curing chronic diseases, rather than preventing them. He said that the most common chronic disease strategy

"has been to deal with the issue largely as a clinical problem with significant health care resources invested in the development of specialized services utilising sophisticated diagnostic and treatment technologies."⁸⁸ Dr. MacLean noted that there is a limited political will to expend resources on prevention because "the outcomes from preventative work are long term. There are no short payoffs. For some parts of the political process, that is not an attractive issue."⁸⁹

Eighty-five per cent of Canadians over 65 have at least one modifiable risk factor for cardiovascular disease, and almost two-thirds of Canadians overall have at least one factor for cardiovascular disease. Two-thirds of Canadians lead sedentary lifestyles, and over half are above a healthy weight.

*Dr. Christina Mills, Director General, CCDPC,
Health Canada (6:8)*

4.1.3 Injury

In 1995-96, there were 217,000 hospital admissions due to injury. By far, the highest rates of hospital admissions due to injuries were among Canadians over the age of 65. The rate was lower among people under the age of 45. Falls remain an important cause of injury among seniors and children under 12. Among children, the next most important cause of injury-related admission to hospital in 1996 was poisoning. For adolescents and adults under the age of 65, the second most important cause was motor vehicle crashes. The vast majority of injuries are accidental (about 66%).⁹⁰ In her brief, Dr. Christina Mills, Director General, Centre for Chronic Disease Prevention and Control (CCDPC) at Health Canada, indicated that each year, \$9.5 billion in direct costs are the result of injuries, in addition to \$4.7 billion in compensation costs. Most of these injuries are preventable.⁹¹

4.1.4 Mental Illness

The National Population Health Survey of 1994/95 found that approximately 29% of Canadians had a high level of stress; 6% of Canadians felt depressed; 16% of Canadians reported that their lives were adversely affected by stress; and 9% had some cognitive impairment such as difficulties with thinking and remembering. Work prepared for the Federal/Provincial/Territorial Advisory Network on Mental Health estimated that about 3% of Canadians suffer from severe and chronic mental disorders that can cause serious functional

⁸⁷ Dr. David MacLean (6:14).

⁸⁸ Dr. David MacLean, Brief to the Committee, p. 4.

⁸⁹ Dr. David MacLean (6:16).

⁹⁰ Federal/Provincial/Territorial Advisory Committee on Population Health, *Toward a Healthy Future - Second Report on the Health of Canadians*, Ottawa, 1999, p. 19.

⁹¹ Dr. Christina Mills, Brief to the Committee, p. 10.

limitations and social and economic impairment such as manic depression and schizophrenia. This translates into approximately one in every 35 Canadians over 15 years of age.⁹²

Mental stresses and disorders leading to mental illness can strike at different periods of life. Autism, behavioural problems and attention deficit disorder most commonly affect children. Adolescence is typical for the onset of eating disorders and schizophrenia. Adulthood is a time when depression may manifest more obviously. Seniors years are marred by Alzheimer's and other types of dementia although depression is also being identified more often in the elderly.

4.1.5 The Economic Burden of Disease

According to data provided to the Committee, the total cost of illness was estimated at \$156.4 billion in 1998. Direct costs (such as hospital care, physician services and health research) amounted to \$81.8 billion, while indirect costs (such as lost productivity) accounted for \$74.6 billion. The diagnostic categories with the highest total costs were cardiovascular diseases, musculoskeletal diseases, cancer, injuries, respiratory diseases, diseases of the nervous system, and mental disorders.

The economic burden of mental health problems were estimated at approximately \$14 billion in 1998. Mental illnesses and disorders were the seventh highest among all diseases in terms of the overall cost of illness. It is estimated that mental illness is the second-leading cause of hospital use among those aged 20 to 44, a period of life normally associated with high productivity.

4.2 Determinants of Poor or Good Health

Disease issues are complex. This complexity is attributable to the fact that poor or good health is dependent on a variety of factors such as biology and genetic endowment, as well as the physical environment and socio-economic conditions in which an individual lives. More importantly, it is the interaction among these various factors that can have a significant impact on one's state of health. For example, Dr. MacLean noted: "Illness generally results from the interaction between an individual's genetic make up and broad environmental factors."⁹³ This was echoed by Dr. Mills who stated that: "many major conditions share common risk factors" and, moreover, risk factors often "cluster together" in individuals.⁹⁴

According to many experts, the most powerful influence on health is socio-economic status. Whether we look at how people rate their own health, premature mortality, psychological well-being or the incidence of chronic disease, socio-economic status remains strongly related to health status. Differences in health status are readily evident in a comparison of the highest and lowest income groups. Canadians with low incomes and low levels of education (which are often related) are more likely to have poor health status, no matter which

⁹² Kimberly McEwan and Elliot Goldner, *Accountability and Performance Indicators for Mental Health Services and Supports: A Resource Kit*, prepared for the Federal/Provincial/Territorial Advisory Network on Mental Health, Ottawa, Health Canada, 2000, p. 30.

⁹³ Dr. David MacLean, Brief to the Committee, p. 3.

⁹⁴ Dr. Christina Mills (6:6 and 6:8).

measure of health is used, and people's health improves on virtually all measures and in all of the factors that influence health as levels of income and education increase. Canadians with low incomes are also more likely to die earlier than other Canadians, no matter which cause of death is considered. But an active gradient in health status from low to middle and upper levels of income can also be observed in virtually all measures of both mortality and morbidity. In other words, high-income Canadians are more likely to be healthy than middle-income Canadians, who are in turn healthier than low-income Canadians. Indeed, it is estimated that if the same death rates as for the highest income earners applied to all Canadians, over one-fifth of all potential years of life lost before age 65 could be prevented.

4.3 The Need For Health Promotion And Disease Prevention

The common thread woven through the witnesses' presentations was the need to invest more in prevention and promotion strategies. They pointed out that currently, there is a tendency to focus on curing diseases, rather than on preventing them. In their view, clinical treatment has been the most common strategy and there has been only a limited political will to expend resources on health promotion and disease prevention, because outcomes from preventive work are generally visible only over the longer term, and are therefore less attractive politically.

We certainly do not have what could be called a preventative dose of prevention programming in Canada, and there is unfortunately a history dealing with things on a one-off basis.

*Dr. Christina Mills, Director General,
CCDPC, Health Canada (6:9)*

Witnesses stressed that with appropriate disease prevention and health promotion strategies, many chronic and infectious diseases, and most injuries, can be prevented. According to Dr. Mills, investing in promotion and prevention is the only way to reverse disease trends and reduce the burden of illness:

Our only chance to slow or reverse the rate of increase [in the economic burden of disease] is to invest in effective upstream prevention. It is quite well recognized now that failure to prepare for an increased burden due to the aging population is a threat to the sustainability of our health care system, but it is not widely recognized that our failure to invest upstream is an equally great, and perhaps even greater, threat to sustainability.⁹⁵

Dr. MacLean echoed this recommendation, noting, "We have not marketed [the Canada Food Guide] at all. We have not spent what Kellogg's spends in a week, on that guide over the past 10 years. These things will not diffuse by osmosis to people. If you want to change habits, particularly in people after they develop them, there is an effort required.

*Dr. David MacLean, Dalhousie University
(6:24)*

Witnesses stressed that it is necessary to encourage people to make smart choices with regard to their own health. They suggested that, to date, strategies that attempted to prescribe "good behaviour" have not been entirely successful, and noted that part of the challenge lies in creating an environment that allows people themselves to make the right choices.

⁹⁵ Dr. Christina Mills (6:7).

Prevention and promotion efforts have to be tailored and flexible. There is no "one size fits all" strategy. For example, sexually transmitted disease trends change as sexual practices change and therefore will always require new prevention and promotion strategies. In this regard it is important to ensure that the marketing of health information be current. Witnesses pointed to the Canada Food Guide as an example of a good initiative, but one that has not been marketed effectively or updated and adapted over time.

Strategies must also recognize the link between healthy communities and healthy citizens. For example, people may be less inclined to bike or jog if the streets are unsafe. Successful community-based programs combine an understanding of the community, with the participation of the public, and the cooperation of community organizations. Approaches that address several risk factors and that can produce multiple benefits include support for families at risk, comprehensive school health promotion programs, and comprehensive work health and safety programs.

We must create healthier communities in Canada because many of the barriers that prevent us from being healthy are in our communities and at the community level.

*Dr. David MacLean,
Dalhousie University (6:15)*

Furthermore, because disease and injury are not uniformly distributed across populations, strategies must also look at the linkages between health status and demographic and environmental factors, such as age, race, region of residence, and gender. Strategies must therefore address disease and injury trends among specific demographic groups, such as youth and Aboriginal peoples. For example, suicides and motor vehicle accidents predominantly affect young men and Aboriginal youth. Adults over age 65 are most affected by falls, and accidents are the leading cause of death in children. Strategies must be tailored to the situations of each affected group, and need to be targeted to the groups that will derive the most benefit from prevention.

Many witnesses pointed to the need for intergovernmental cooperation, in order to implement prevention and promotion programs. They noted that all three levels of government should be involved, given the complexity and multiple dimensions of health issues. Dr. MacLean recommended that:

(...) the federal government use its time-honoured way of influencing provinces, which is the 50-cent dollars. The federal government could start by making a policy priority of trying to increase the infrastructure for prevention because they have to work with the provinces on these issues.

...

We have never had a cost-shared process for public health.⁹⁶

⁹⁶ Dr. David MacLean, Dalhousie University (6:25).

One difficulty that arises with regard to the elaboration of strategies for health promotion and disease prevention is that many diseases usually have several risk factors associated with them. Comprehensive prevention and promotion strategies must therefore address the linkages between risk factors, as well as between health status and socio-economic, demographic, and environmental factors. Approaches that address several risk factors and which can produce multiple benefits include support for families at risk, comprehensive school health promotion programs, and comprehensive work health and safety programs. Approaches like these can be part of a broader population health strategy.

4.4 Population Health Strategy

Witnesses explained that several key issues with regard to population health strategies largely revolve around the difficulties associated with how to translate research evidence into actual policy that can be implemented. In their view, there can be little doubt that population health strategies would result in improved health outcomes, but there remain significant practical obstacles to moving beyond the expression of pious good wishes to the design of concrete programs that are sustainable over the long haul.

In the first place, the multiplicity of factors that influence health outcomes means that it is exceedingly difficult to associate cause and effect, especially because the effects are often only felt many years after exposure to the cause. The Committee was told that this time lag also means that the timeframe for judging the impact of policy in this area is a long term one. Because political horizons are often of a shorter-term nature, this can constitute a serious disincentive for the elaboration and implementation of population health strategies.

Furthermore, as noted earlier, a massive infrastructure that is already in place to deal with the treatment of illness, and this creates many entrenched interests within the system. Witnesses explained that it is not necessarily that people who treat illness have anything against promoting health — the contrary is no doubt the norm. Rather, it is simply that massive resources must be deployed simply to sustain the existing health care infrastructure, making it difficult to find sufficient time, energy and capital to devote to the preventive, or wellness, side of the system.

Moreover, the Committee heard that because of the diversity of the factors that influence health outcomes, it is very difficult to coordinate government activity in the area of population health. Given that the health care system itself is only responsible for a relatively small percentage of the actual determinants of health, the responsibility for population health cannot reside exclusively with the various ministries of health. Yet the structure of most individual governments does not easily lend itself to inter-ministerial regulation of complex problems, and this difficulty is compounded several times over when the various levels of government, along with the many non-governmental players, are taken into account, as they must be.

It is important to recognize that the social determinants of health are tied and people who suffer the most from [the] diseases are people who fall into lower socio-economic categories. It is also important to link our economic and social policies to health if we want to make a dent in these issues.

*Dr. David MacLean, Dalhousie University
(6:15)*

For example, the evidence concerning the existence of gradients of health that correlate with socio-economic levels is quite conclusive. The implication of this fact is that the promotion of population health requires a strong focus on the reduction of poverty. But there are clearly a great number of government policies that have an impact on the levels of poverty in the country and it would be impossible to ask a ministry of health to take charge of all the policy tools that are involved, if for no other reason than this would be rightly seen as a form of 'health imperialism' by other ministries. It is also somewhat perverse, as one witness pointed out, to argue for the reduction of poverty exclusively on the health terrain. Any such initiative would have to come about as a result of the overall social policy orientation of government, something that is considerably broader than health policy alone.

Overall, the evidence suggests that population health strategies in general should be carefully thought through so that they take into account the realities facing specific communities. This implies that rigidly-designed programs applied in a uniform and highly centralized fashion are unlikely to succeed. Some combination of coordination and decentralized implementation therefore would seem to be required.

Although there are many difficulties associated with the development of an effective population health approach, the witnesses contended that it is important for the federal government to continue to try to set an example by exploring innovative ways to turn good theory into sound practice that will contribute to improving health outcomes in Canada.

4.5 Research

Many witnesses told the Committee that greater research is needed, particularly in certain areas. Often, money is spent without sufficient epidemiological research to guide where it is invested. For example, billions of dollars have been spent on breast cancer screening programs, but there has been minimal research on the physiology and biology of the disease, or on the intersection of risk factors that contribute to its development.

Dr. MacLean also told the Committee that more research on prevention strategies is needed. He pointed to the budgetary increases for the Canadian Institutes of Health Research (CIHR), but wondered whether or not those new resources would be directed at health promotion and disease prevention research. Dr. Mills noted that CIHR's expanded mandate offers an "opportunity to support additional research required to determine what is most effective to create lasting behaviour change."⁹⁷

In terms of chronic disease research, witnesses told the Committee that the problem, essentially, is not a lack of data or research, but a lack of knowledge on how to use that information in the implementation of preventive strategies. In this respect, research is needed to determine how best to share health information with people and, in particular, how best to target that information to those in lower socio-economic groups or those with poor literacy skills.

In terms of infectious disease research, Dr. Gully noted that although resources are being directed to research initiatives, such as the CIHR and the Health Canada laboratory in

⁹⁷ Christina Mills (6:9).

Winnipeg, "it is always difficult to make a bid for contingency funds for new [infectious disease] threats."⁹⁸ He pointed to the difficulty of balancing resources for immediate threats with those for other, less immediate, issues.

With respect to mental illness, witnesses stressed the need to invest more in applied research. In their view, research into mental illness and mental health is vastly underfunded in relation to the economic burden of mental disease and disorder. It was suggested that the federal government should take the lead in promoting a comprehensive research agenda on the mental health issue.

Witnesses indicated that we need to spend more on the infrastructure for disseminating the evidence generated by health research. According to Dr. Gully, federal funding in this area would allow data to be collected from, and shared among, all of the provinces and territories. He pointed to the Internet as a tool for such an undertaking. This idea was echoed by Dr. MacLean, who told the Committee about the Health Promotion web site developed in Nova Scotia, which provides health-related information to users.

4.6 Committee Commentary

Although the witnesses addressed a wide range of issues, the primary emphasis was on the need to increase disease prevention and health promotion programs. Witnesses noted that the federal government could play an important role in preventing disease and promoting healthy lifestyles. Moreover, they suggested that appropriate, comprehensive, and targeted disease prevention and health promotion programs would have a significant effect on both the health of Canadians and Canada's health care system. Such programs would improve quality of life, increase productivity, decrease unintentional disability and premature death, and reduce the economic burden of disease.

Canada is one of the healthiest countries in the world, with high life expectancy, low infant mortality rates, and a good quality of life. These successes, however, should not conceal the challenges that persist. Chronic diseases - such as cancer, heart disease, and respiratory problems - are the leading cause of death in Canada. Diseases that had, at one time, virtually disappeared, such as tuberculosis, are re-emerging, and increased international mobility has accelerated the spread of other diseases. Moreover, in 1997, accidents killed more than 13,000 Canadians. Finally, the prevalence of disease varies among different demographic groups and populations, striking, in particular, Aboriginal peoples, and the poor.

A diversity of factors influences health outcomes. Population health strategies are broadly based policies that take all these determinants of health into account with the aim of improving the health of an entire population. The main objective of population health is to ward off potential health problems before they require treatment within the health care system. These strategies can greatly contain the demand for health services and reduce the economic burden of disease.

The Committee concurs with witnesses that the federal government has a definite role in health promotion and disease prevention. Similarly, the federal government has

⁹⁸ Paul Gully (6:26).

been recognized as a leader worldwide in developing the concept of population health. In our view, the federal government should, once again, show leadership in implementing a population health strategy for all Canadians. This is a feasible task, given its current role in many areas that affect health, such as the environment, economic policy, workplace safety, etc.



CHAPTER FIVE:

THE HEALTH OF ABORIGINAL CANADIANS

There are notable disparities between the health of Canada's Aboriginal population and the health of the general Canadian population. The Aboriginal population experiences poorer health, lower life expectancies, higher infant mortality rates and higher rates of some chronic illness. There are also significant socio-economic disparities between Aboriginal people and the general population – unemployment rates are higher and education and average income levels are lower.

This chapter provides a brief demographic, socio-economic and health profile of Canada's Aboriginal population. It also highlights federal programs directed to Aboriginal health and discusses the Aboriginal health policy of the federal government.

5.1 Demographic Profile of Canada's Aboriginal Population⁹⁹

Aboriginal people constitute approximately 3% of Canada's total population. The *Constitution Act, 1982* recognizes three groups of Aboriginal peoples: Indians, Inuit, and Métis. The Indian population includes both status and non-status Indians. The *Indian Act* sets out the legal definitions that apply to status Indians (First Nations) in Canada, that is, Indians who are registered under the *Indian Act*. Non-Status Indians are those who are not registered under the Act. The Inuit population of Canada lives primarily in communities in the Northwest Territories, Nunavut, Nunavik and Labrador. About 6% of Inuit live in southern Canada. Inuit are not specifically covered by the *Indian Act* but receive certain benefits from the federal government. Métis people are of mixed Indian and European ancestry. The Métis are not covered by the *Indian Act* and do not receive Métis-specific benefits from the federal government.

As Graph 5.1 shows, Canada's total Aboriginal population was estimated at 1,398,400 in 2000 and comprised: 28.5% of Status Indians living on reserve, 30.6% of Non-status Indians, 20.8% of Status Indians off reserve, 15.6% of Métis, and 4.5% of Inuit.¹⁰⁰

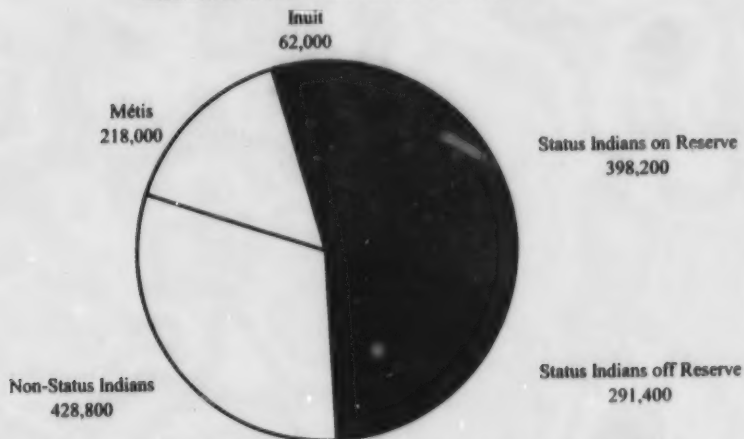
Canada's Aboriginal population is diverse. There are over 600 First Nations communities, comprising over 50 nations or cultural groups and more than 50 languages. Approximately 63% of First Nations communities have fewer than 500 residents — 5% have more than 2,000. Although the Inuit communities share the same language, Inuktitut, they have different dialects from one region to another. Most Inuit communities have fewer than 1,000 persons. The Métis have developed their own distinct language, known as Michif, from a

⁹⁹ The demographic information comes from the following three publications: Indian and Northern Affairs Canada and Canadian Polar Commission, *Estimates Part III, 2000-2001*; Statistics Canada, 1996 Census: Aboriginal Data; Health Canada, *A Second Diagnostic on the Health of First Nations and Inuit People in Canada*, November, 1999.

¹⁰⁰ Indian and Northern Affairs Canada and Canadian Polar Commission, *Estimates 2000-2001, Part III, Report on Plans and Priorities*, p. 4.

mixture of French, English, Cree and Ojibway. The Métis population is mainly concentrated in Manitoba, Saskatchewan and Alberta; about 10% of them live in Métis settlement lands.

GRAPH 5.1:
ESTIMATED ABORIGINAL POPULATION, 2000



Source: Indian and Northern Affairs Canada and Canadian Polar Commission, *Estimates 2000-2001*, Part III, p. 4.

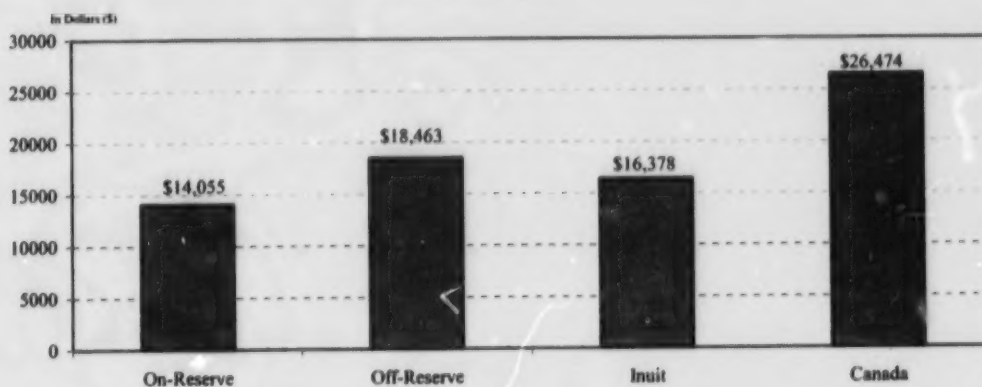
Canada's Aboriginal population is becoming increasingly urbanized. The urban Aboriginal population experienced rapid growth between 1981 and 1991, increasing by 55 percent (compared to an 11 percent increase in urban non-Aboriginal residents). Although its future rate of growth is expected to be slower, the urban Aboriginal population is still anticipated to grow by 43 percent in the next 25 years, from 320,000 in 1991 to 457,000 in 2016. In 1996, about one-fifth of the Aboriginal population lived in seven of the country's 25 largest census metropolitan areas – Winnipeg, Edmonton, Vancouver, Saskatoon, Toronto, Calgary and Regina.

Overall, the Aboriginal population is growing at twice the rate of the Canadian population and is younger on average than Canada's general population. In 1996, the average age of the Aboriginal population was 25.5 years, 10 years younger than the average age of the general population. Children under age 15 comprised 34% of all Aboriginal people, compared to 21% of Canada's total population. Young people in the 15-24 age range constituted a greater portion of the Aboriginal population (18%) compared to the general population at 14%. Seniors currently make up a relatively small proportion of the Aboriginal population in Canada. In 1996, just 4% of people who reported they were North American Indian, Métis, or Inuit were aged 65 and over, compared with 11% of the general population.

5.2 Socio-economic Profile and Physical Environment¹⁰¹

There are significant socio-economic disparities between Aboriginal peoples and the general Canadian population. Aboriginal peoples are less likely to be in the labour force, and unemployment rates are higher than those of the general population. In 1997-98, the unemployment rate on reserves was almost triple the national rate, and reliance on social assistance was four times the Canadian rate. The Royal Commission on Aboriginal Peoples (1996) reported that the unemployment rate for the urban Aboriginal population was two and a half times greater than that of their non-Aboriginal counterparts. In 1995, the average employment income of the Aboriginal population was \$17,382 compared to the national average of \$26,474. Average annual income from all sources for Aboriginal people in urban areas trailed 33 percent behind that of non-Aboriginal residents.

GRAPH 5.2:
AVERAGE EARNINGS, 1995



Source: Health Canada, *A Second Diagnostic on the Health of First Nations and Inuit People in Canada*, November 1999, p. 13.

According to the recent report, *Toward a Healthy Future: Second Report on the Health of Canadians*, in 1994 at least 44 percent of the Aboriginal population and 60 percent of Aboriginal children under six years of age lived below Statistics Canada's low income cut off measure.¹⁰² The incidence of poverty among the urban Aboriginal population is high. The 1991 census found that more than 60 percent of Aboriginal households in Winnipeg, Regina and Saskatoon were below the low-income cut-off line. For single-parent households headed by women, the percentage was even higher.

¹⁰¹ The information relating to the socioeconomic conditions and the physical environment comes from the following publications, unless otherwise indicated. Federal, Provincial and Territorial Advisory Committee on Population Health, *Toward a Healthy Future, Second Report on the Health of Canadians*, 1999, Statistics Canada, 1996 Census: Aboriginal Data; Royal Commission on Aboriginal Peoples, *Final Report*, 1996; Health Canada, *A Second Diagnostic on the Health of First Nations and Inuit People in Canada*, November 1999.

¹⁰² The report also pointed out that these figures likely underestimate the Aboriginal data because some 44,000 people living on reserves and settlements were incompletely enumerated in the 1996 census.

Overall, levels of educational attainment among the Aboriginal population are lower than those of the Canadian population as a whole. In 1996, 54 percent of the Aboriginal population aged 15 years and over did not have a high school diploma. The comparable figure for the non-Aboriginal population was 16 percent. Differences between 1981 and 1996 data show improvement in educational attainment – the proportion of the Aboriginal population with less than a high school education dropped from 59 percent to 45 percent, a greater proportion of the Aboriginal population aged 20 to 29 had obtained a college degree or diploma (23 percent in 1996, 19 percent in 1981) and the proportion of Aboriginal university graduates rose by 1 percent (from 3 percent to 4 percent), but are still below comparable measures for the general Canadian population.

A Second Diagnostic on the Health of First Nations and Inuit People in Canada noted that one's "physical environment is an important factor in the exposure to risks such as infectious organisms, chemical and biological contaminants, stress levels, and injury."¹⁰³ The report made the following points about the physical environment of many Aboriginal people:

- Aboriginal people appear to be the largest population sub-group that is the most at risk of becoming homeless in Canada;
- Crowded housing conditions are much more prevalent among the Aboriginal population than among the general Canadian population;
- Significant numbers of Aboriginal people (43%) live in inadequate housing;
- Mold growth is a recently identified issue in aboriginal housing but the full extent and impact on health is not yet known;
- First Nations and Inuit people are more at risk of exposure to environmental contaminants because of their traditional diet of fish and marine mammals;
- Access to clean, safe drinking water and adequate sewage disposal is an issue for a number of Aboriginal communities.¹⁰⁴

5.3 Health Profile of the Aboriginal Population¹⁰⁵

There are significant differences in health status between the Aboriginal population and the Canadian population. *Toward a Healthy Future: Second Report on the Health of Canadians* noted that the Aboriginal population experiences poorer health than the general

¹⁰³ *A Second Diagnostic on the Health of First Nations and Inuit People in Canada*, November, 1999, p, 14.

¹⁰⁴ *Ibid.*, p. 14-18.

¹⁰⁵ Sources include: Federal/Provincial/Territorial Working Group on Aboriginal Peoples and HIV/AIDS, *Making a Difference*, May 1999; Federal, Provincial and Territorial Advisory Committee on Population Health, *Toward a Healthy Future: Second Report on the Health of Canadians*, 1999; Jill Lava and Michael Clark, *Diabetes Among Aboriginal (First Nations, Inuit and Métis) People in Canada: The Evidence*, 10 March 2000; First Nations and Inuit Regional Health Survey National Report 1999; Health Canada, *A Second Diagnostic on the Health of First Nations and Inuit People in Canada*, November, 1999; Assembly of First Nations, Brief to the Committee, 30 May 2001; Inuit Tapirisat of Canada, *Evaluation of Models of Health Care Delivery in Inuit Regions*, 2000; Mr. Gerald Morin, President, Métis National Council, 30 May 2001 (16:29-33).

Canadian population, as evidenced by lower life expectancies, higher infant mortality rates and higher rates of some chronic illness. Many other reports made similar observations:

- Aboriginal people suffer from chronic diseases (hypertension, arthritis, diabetes and heart disease) more so than the general population. Diabetes is one of the leading causes of illness and disability among First Nations. Current evidence indicates that diabetes is more than three times as prevalent in Aboriginal communities as in the general population. The

(...) the First Nations life expectancy falls somewhere around the 1970 level of all Canadians. (...) To put this in a broader perspective, the life expectancy of First Nations is lower than in all of the 25 countries with the longest life expectancy. Looking at the age-standardized mortality rates, for First Nations men the rate is 1.4 times higher; for First Nations women it is 1.9 times higher. The age-standardized mortality rate for women actually falls somewhere around 1958 levels, when you look at the level for all Canadians. Infant mortality is still two times higher for First Nations relative to all others. We are looking at First Nations women with an infant mortality rate of 11.5, as against the Canadian average of 6. Again, the rates are similar to years in the mid-1970s.

Dr. Judith Bartlett (16:58)

following table of chronic disease rates taken from *A Second Diagnostic on the Health of First Nations and Inuit People in Canada*, illustrates the depth of the chronic disease problem among the Aboriginal population.

TABLE 5.1
CHRONIC DISEASES

CHRONIC CONDITION	GENDER	AGE ADJUSTED PREVALENCE (%)		FN&I TO CANADIAN RATIO
		FIRST NATIONS AND INUIT (FN&I)	GENERAL CANADIAN POPULATION	
Heart Problems	Male	13	4	3.3
	Female	10	4	2.5
Hypertension	Male	22	8	2.8
	Female	25	10	2.5
Diabetes	Male	11	3	3.7
	Female	16	3	5.3
Arthritis/Rheumatism	Male	18	10	1.8
	Female	27	18	1.5

Source: Table taken from *A Second Diagnostic on the Health of First Nations and Inuit People in Canada*, November 1999, p. 17.

- First Nations men and women on reserves have approximately three times the rate of heart problems and hypertension compared to the general

Canadian population. (*First Nations and Inuit Regional Health Survey, National Report 1999*).

- Between 1991 and 1996, age-standardized tuberculosis rates were almost seven times higher among First Nations persons living on reserves than the rate for the general Canadian population. The current incidence of TB among First Nations living on reserves is 18 times higher than the rate for the Canadian-born non-Aboriginal population (*A Second Diagnostic on the Health of First Nations and Inuit People in Canada*).
- Despite major improvements since the 1970s, infant mortality rates for First Nations communities continue to be double the rate for Canada as a whole (*Toward a Healthy Future: Second Report on the Health of Canadians*).
- The suicide rate among the Aboriginal population for all age groups is about three times higher than the rate for the population of Canada as a whole (*A Second Diagnostic on the Health of First Nations and Inuit People in Canada*). Among Aboriginal youth, the suicide rate is five to six times higher than the suicide rate of the general Canadian youth population. Data taken from *Evaluation of Models of Health Care Delivery in Inuit Regions* indicate that the suicide rate for Canada's Inuit regions is approximately 6 times higher than the rate for the general Canadian population.
- Alcohol, substance and solvent abuse is common in a number of First Nations and Inuit communities.
- Fetal Alcohol Syndrome/Fetal Alcohol Effects is much higher in some Aboriginal Communities than in other parts of Canada (*A Second Diagnostic on the Health of First Nations and Inuit People in Canada*).
- The rate of deaths due to injuries and poisonings is 6.5 times higher for First Nations and Inuit than for the total Canadian population (*A Second Diagnostic on the Health of First Nations and Inuit People in Canada*).
- A 1999 study reported that the annual number of Aboriginal AIDS cases has increased significantly. In 1996-97, cases had risen to 10% of the total AIDS cases (up from 2% in 1989).¹⁰⁶
- Smoking is more prevalent in the Aboriginal population. The First Nations and Inuit Regional Health Survey indicates that 62% of adult First Nations peoples living on reserve and in Labrador Inuit communities are smokers and over 70% of all respondents to the survey aged 20-29 were smokers.
- Obesity is a major health problem among the Aboriginal population.
- Approximately 75% of Aboriginal women are victims of family violence and up to 40% of children in some Northern communities have been physically abused by a family member (*A Second Diagnostic on the Health of First Nations and Inuit People in Canada*).

¹⁰⁶ *Making a Difference*, Report of the Federal/Provincial/Territorial Working Group on Aboriginal Peoples and HIV/AIDS, May 1999.

- Overall, life expectancy rates for Aboriginal peoples are lower by some 6 years than comparable statistics for the general population.
- Many Aboriginal people have reduced access to health care services because of the remote geographical location and small size of several Aboriginal communities. Seventy-seven percent of communities have fewer than 1,000 people and many (44 percent) are found in isolated, semi-isolated or remote-isolated areas of Canada.¹⁰⁷

5.4 Federal Programs Directed to Aboriginal Health

Health care is delivered to Canada's Aboriginal people through a complex array of federal, provincial and Aboriginal-run programs and services. In addition, the framework for the delivery of a number of federal programs is changing as Aboriginal communities, governments and organizations take control over the delivery of health-related programs.

Who delivers what to whom depends on a number of factors such as status under the *Indian Act*, place of residence (on or off-reserve), the location of one's community (non-isolated or remote), and whether Health Canada has signed an agreement to transfer the delivery of certain health services to an Aboriginal community or organization.

In his testimony, Ian Potter, Assistant Deputy Minister, First Nations and Inuit Health Branch at Health Canada, told the Committee that Status Indians (First Nations) under the *Indian Act* are a federal responsibility. The provision of hospital and physician services, however, is a provincial or territorial responsibility. First Nations who reside on reserves are entitled to the general health services provided by the provinces and territories such as hospitals, physician services, and other insured services covered by provincial and territorial health plans. Health Canada, however, provides direct primary care and emergency services on reserves in remote and isolated areas where no provincial services are available. More precisely, the department operates 4 small hospitals, 77 nursing stations and 217 health centres.

Health Canada also provides community-based health promotion and prevention services or funding for such services for First Nations people living on reserves. Regardless of residence (on or off-reserve), First Nations people receive non-insured health benefits (NIHB) funded by the federal government. These benefits include drugs, medical supplies and equipment, dental care, vision care, medical transportation, provincial health care premiums and crisis mental health counselling.¹⁰⁸

Provincial and territorial governments are responsible for delivering health services to Inuit, but delivery of health services to Canada's Inuit population varies with jurisdiction of residence. In 1988, the federal government transferred responsibility for health administration to the Government of the Northwest Territories. With the creation of Nunavut, the Nunavut government assumed this responsibility for the Nunavut region. The federal

¹⁰⁷ Health Canada, Brief to the Committee, 30 May 2001; Margaret Horn, National Indian and Inuit Community Health Representatives Organization, Brief to the Committee, 30 May 2001.

¹⁰⁸ National Aboriginal Health Organization, Brief to the Committee, 30 May 2001, p. 1.

government provides funds to the territorial governments to deliver health programs for First Nations and Inuit including non-insured health benefits.¹⁰⁹

As a result of the James Bay and Northern Quebec Agreement, the federal government transferred responsibility for Inuit health services in northern Quebec to the government of Quebec then to Nunavik. The Nunavik Regional Department of Health and Social Services administers federal and provincial programs in that region.¹¹⁰

In Labrador, the province provides health services to all residents and the federal government provides funding to the Labrador Inuit Health Commission through a transfer agreement and contribution agreements for specific projects and for a range of federal programs including non-insured health benefits.¹¹¹

Métis and non-status Indians are not eligible for federal health programs. They receive medical services from provincial and territorial governments on the same basis as other Canadians. Métis and non-status Indians are not included under the *Indian Act* and are not eligible for non-insured health benefits funded by the federal government.

The federal government responsibilities with respect to First Nations and Inuit health services are carried out by Health Canada's First Nations and Inuit Health Branch (FNIHB) (formerly the Medical Services Branch). FNIHB's overall responsibilities include:

- the provision of community-based health promotion and prevention programs to First Nations living on reserves and to Inuit communities (including public health, health education and promotion, as well as strategies to address specific health problems such as alcohol and drug abuse);
- the provision of non-insured health benefits (NIHB) to First Nations and Inuit people regardless of residence in Canada;
- the provision of primary care and emergency services in nearly 200 isolated and semi-isolated areas where no provincial services are readily available;
- public health services in over 400 communities;
- funding addiction services through treatment centres and addiction treatment workers.

Overall, the expenditures of the First Nations and Inuit Health Program for 2000-01 were estimated at \$1.3 billion. About 53 percent or \$677.6 million of this amount was devoted to expenditures on community health services, 45 percent or \$578 million to non-insured health benefits, and 2 percent or \$23.5 million to hospitals.

In his testimony, Mr. Potter outlined several challenges faced by the First Nations and Inuit health programs. These include: an increasing client base; a shortage of doctors and nurses; providing service in remote and isolated communities; maintaining and attracting physicians and nurses to work in isolated communities; difficult access to some

¹⁰⁹ Inuit Tapirisat of Canada, *Evaluation of Models of Health Care Delivery in Inuit Regions*, 2000, p. 10.

¹¹⁰ *Ibid.*, pp. 9-10.

¹¹¹ *Ibid.*

specialized services; significant cost increases associated with drug benefits, medical technology and transportation; and increases in the rate of chronic diseases that require long-term care and drug therapy.¹¹²

Working to change the underlying social and economic conditions such as poverty, inadequate housing and low levels of education that are also important determinants of health and achieving better coordination with the provinces were also identified as important challenges.¹¹³

In addition to Health Canada, eleven other federal government departments offer programs for Aboriginal people. Total expenditures for these programs for 2001-02 are estimated at \$7.3 billion. The vast majority of this money (70 percent) falls under the budget of Indian and Northern Affairs Canada (INAC) followed by Health Canada at 19 percent (\$1.3 billion), Canada Mortgage and Housing Corporation (CMHC) at 4 percent and Human Resources Development Canada (HRDC) at 3 percent. A number of other departments make up the remaining 3 percent.

Indian and Northern Affairs Canada's mandate includes social assistance programs, funding for elementary, secondary and post-secondary education, on-reserve housing, child and family services; and services on reserves such as homemaker services. INAC also funds infrastructure projects in Aboriginal communities. These include water and sewer services, environmental remediation, roads and bridges, fire protection, electrification, education facilities and other community facilities.

Other federal departments are also involved in the funding of a number of Aboriginal business development and workforce participation initiatives.

5.5 Aboriginal Health Policy at the Federal Level

The historic relationship between the federal government and Canada's Aboriginal peoples sets the context for federal policy and initiatives in relation to Aboriginal health. Table 5.2 outlines a number of events in this relationship. In its brief to the Committee, the National Aboriginal Health Organization (NAHO) explained:

The federal government's policy relationship with Aboriginal groups has seen significant change in the last decade. As little as fifteen years ago, federal Aboriginal resources for health and social programs were directed almost exclusively to First Nations and Inuit communities; non-reserve groups received limited programs from the federal government (examples would be off-reserve housing programs and the Canadian Aboriginal Economic Development Strategy) and indeed these groups were virtually invisible to the Canadian public. Today, the federal government's policy focus remains

¹¹² Ian Potter (16:8-9).

¹¹³ *Ibid.*

directed to First Nations and Inuit, however, several Aboriginal-wide initiatives have been developed which also involve the non-status, off-reserve and Métis populations.¹¹⁴

TABLE 5.2
SIGNIFICANT HEALTH POLICY EVENTS:
ABORIGINAL PEOPLES – FEDERAL GOVERNMENT
RELATIONSHIP

YEAR	EVENT	DESCRIPTION
1867	<i>Constitution Act, 1867</i>	Gave the federal government jurisdiction over "Indians and Land reserved for the Indians"
1876	<i>Indian Act</i>	Enactment of the federal <i>Indian Act</i>
1939	Supreme Court of Canada decision	Recognized that the term "Indian" in the Constitution includes Inuit
1945	Shift in health services	Responsibility for Indian health services was transferred from Indian Affairs to the Department of National Health and Welfare
1962	Medical Services Branch (now the First Nations and Inuit Health Branch)	The Medical Services Branch was created within the Department of National Health and Welfare to amalgamate Indian Health and Northern Health
1979	Indian Health Policy	Goal: "to achieve an increasing level of health in Indian communities, generated and maintained by the Indian communities themselves". Improvements to the health status of the Indian population should be built on three pillars: 1. community development; 2. the traditional relationship between Indian people and the federal government; and 3. the interrelated Canadian health system, with its federal, provincial, municipal, Indian and private sectors.
1980	Berger Report	Recommended methods of consultation that would ensure substantive participation by First Nations and Inuit people in the design, management and control of health care services in their communities.
1982	<i>Constitution Act, 1982</i>	Recognition of First Nations, Inuit and Métis and enshrinement of existing Aboriginal and treaty rights in the Canadian Constitution
1986	Transfer Policy Approval	Federal Cabinet approved the health transfer policy framework for transferring resources for Indian health programs south of the 60th parallel to Indian control.
1998	Supreme Court of Canada	Various Supreme Court of Canada decisions with respect to the government's fiduciary responsibility to

¹¹⁴ National Aboriginal Health Organization, *An Examination of Aboriginal Health Service Issues and Federal Aboriginal Health Policy*, Brief to the Committee, 30 May 2001, pp. 4-5.

		Aboriginal people
1995	Self-Government Policy	The Government of Canada recognizes the inherent right of self-government as an existing right within section 35 of the <i>Constitution Act, 1982</i> . Health is one of the subject matters that could be covered in self-government negotiations.
1996	Report of the Royal Commission on Aboriginal Peoples (RCAP)	Report made a number of recommendations in relation to Aboriginal health. Aboriginal health and healing systems should embody the following characteristics: 1. equity in access to health and healing services and in health status outcomes; 2. holism in approaches to problems and their treatment and prevention; 3. Aboriginal authority over health systems and, where feasible, community control over services; and 4. diversity in the design of systems and services to accommodate differences in culture and community realities.
1998	<i>Gathering Strength: Canada's Aboriginal Action Plan</i> -- Federal government response to the RCAP report	<i>Gathering Strength</i> focuses on: Renewing the Partnerships with Aboriginal people; Strengthening Aboriginal Governance; Developing a New Fiscal Relationship; Supporting Strong Communities, People and Economies

The Committee was told that federal Aboriginal health policy has followed a continuum that reflects developments in both the Canadian health care system at large and the evolving relationship between the federal government and Aboriginal people. During the first half of the 20th century, federal Aboriginal health initiatives focused on medical care, rather than on providing comprehensive services to the First Nations and Inuit populations. This included the operation of nursing stations, health centres and hospitals. With the introduction of universal Medicare, the provision of public health and preventative measures rather than the delivery of direct health care became the main emphasis of federal Aboriginal health activities, although Health Canada has continued to provide primary health services in remote and isolated areas. For the most part, however, federal Aboriginal health initiatives are limited to First Nations and Inuit. Métis and non-status Indians benefit from only a limited number of federal programs.¹¹⁵

The federal Indian Health Policy 1979 established the general policy framework for the provision and payment of health services by the federal government to First Nations and Inuit. The stated goal of the Policy is "to achieve an increasing level of health in Indian communities, generated and maintained by the Indian communities themselves". The Policy provided that improvements to the health status of the Indian population should be built on three pillars:

¹¹⁵ NAHO, Brief to the Committee, 30 May 2001, p. 5. These initiatives include Aboriginal Diabetes Initiative, Aboriginal Healing Foundation, National Aboriginal Health Organization, Aboriginal Head Start.

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1. community development (socio-economic and cultural/spiritual) in order to remove the conditions which limit the attainment of well-being;
2. the traditional trust relationship between Indian people and the federal government; and
3. the Canadian health care system, with its federal, provincial, municipal, Indian and private sectors.

Another important feature of the Policy was the recognition that First Nations and Inuit communities could take over the administration of their own community health programs. To achieve this objective, in the mid-1980s the federal government began to emphasize the transfer of control over health services to First Nations and Inuit communities and organizations.

Table 5.3 shows the status of transferred communities as of March 31, 2000 and the projected transfers to 2005. The total number of eligible First Nations/Inuit communities is 599. As of fiscal year end 1999/2000, a total of 276 (46 percent) of these communities had signed a Health Services Transfer Agreement.

TABLE 5.3:
HEALTH SERVICES TRANSFERS

TRANSFERS BY REGIONS/COMMUNITIES					
Region	Total Eligible Communities	Transfers as of March 31, 2000		Projected Transfers to March 31, 2005	
	Number	Number	% Total	Number	% Total
Atlantic	40	20	50	36	90
Quebec	28	23	82	28	100
Ontario	124	38	31	57	46
Manitoba	62	33	53	52	84
Saskatchewan	83	60	72	68	82
Alberta	58	4	7	10	17
Pacific	204	98	49	109	53
TOTAL	599	276	46	360	60

Source: Health Canada, *First Nations and Inuit Control, Annual Report, 1999-2000* (available at http://www.hc-sc.gc.ca/msb/pptsp/annual_e.htm#T3).

5.6 Barriers to Aboriginal Health and Wellness

During the hearings, witnesses outlined a number of jurisdictional and structural

All of the provinces are at different levels with their involvement in providing health programming to Aboriginal people.

Dr. Judith Bartlett, National Aboriginal Health Organization (16:59)

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issues in relation to Aboriginal health services that have the effect of impeding or denying access to appropriate health care services.

Jurisdictional barriers to the provision of health services to Aboriginal people exist on two levels. The first barrier arises from the division of powers between the federal and provincial governments. Provincial governments provide equal access to health care services under the *Canada Health Act* for all residents including First Nations living on reserves and Inuit but take the position that the federal government is responsible for certain health services to Aboriginal persons who are Indians under the *Indian Act* (Status Indians). As a result, witnesses indicated that health services not covered by the *Canada Health Act* but otherwise provided by the provinces may or may not be provided to First Nations and Inuit communities.¹¹⁶

Other consequences of having two jurisdictions involved in delivering health services include program fragmentation, problems with coordinating programs and reporting mechanisms, inconsistencies, gaps, possible overlaps in programs, lack of integration, the inability to rationalize services, and impediments to developing a holistic approach to health and wellness.

The second jurisdictional barrier stems from the divisions among Aboriginal peoples that arise as a result of the *Indian Act*. Because Métis and non-status Indians are excluded from the legislation, they are not eligible for most federal programs. The NAHO and the Métis National Council stressed before the Committee that lack of recognition leaves the Métis and non-status populations in a jurisdictional void. For example, Dr. Judith Bartlett noted:

The division of powers and fragmentation among the various services, service providers and authorities create confusion regarding the services to which Aboriginal people are entitled. It is not just the recipients that suffer, but also the people providing the services and community managers.

Michelle Audette, Native Women Association of Quebec (16:38)

There are no primary care services specifically targeted to Métis and non-status Indian populations. (...) The Métis and non-status are in a jurisdictional void. They, in fact, are excluded from legislation, and this impacts on their eligibility for programs.¹¹⁷

Similarly, Gerald Morin, President of the Métis National Council, told the Committee:

Federal and provincial jurisdictional disputes, cultural barriers and geographic isolation ... impede our access to the health care system. Métis communities are facing many of the same health challenges as other Aboriginal communities but the difference is that Métis health issues receive limited and scant attention from the federal government. The fundamental issue at stake for the Métis is the unwillingness of Health Canada to

¹¹⁶ *Ibid.* pp. 7-8.

¹¹⁷ Dr. Judith Bartlett (16:58-59).

*deal equitably and fairly with the Métis people as one of the indigenous peoples in Canada.*¹¹⁸

Witnesses told the Committee about the restrictive nature of the federal health transfer policy that transfers control of federal health programs south of 60° to First Nations and Inuit communities and organizations. It was observed that the NIHB, a program comprising nearly half of Health Canada's funding to First Nations and Inuit, is not eligible for inclusion in the transfer process.¹¹⁹ Furthermore, the NAHO noted that Health Canada's policy with respect to the transfer of health services to Aboriginal organizations does not include a framework that would "facilitate the integration of federal and provincial services."¹²⁰ Again, this creates barriers to program rationalization and the development of a comprehensive approach to Aboriginal health.

Witnesses also pointed out that structural barriers arising from geography, isolation and small community size in rural and remote areas have an impact on access to health services and the comprehensiveness of available services. High turnover rates for health workers, changes in visiting physicians, language, and the lack of integration of traditional and western health systems also constitute barriers. Witnesses stressed that structural barriers are not just confined to rural and remote areas – in urban settings barriers exist as well but may be secondary to issues relating to the cultural appropriateness of care and lack of access due to poverty.¹²¹

Ron Wakegijig, a healer from the Wikwemikong Health Centre, pointed out that because of the differences between the concerns, issues and requirements of remote, isolated or semi-isolated Aboriginal communities and more urbanized southern Aboriginal communities, national policies developed for all Aboriginal people may not adequately address specific regional concerns.¹²²

A number of witnesses emphasized to the Committee that Aboriginal peoples are not a homogeneous group. Inuit witnesses called for this distinctiveness to be recognized in the delivery of health programs and research. Pauktuutit Inuit Women's Association of Canada stressed the importance of meaningful involvement of Inuit in the development of programs and policies that affect Inuit health. Pauktuutit noted that often the terms "Aboriginal health" and "First Nations health" have become one and the same; with the result that programming is not based on the input and needs of Inuit.

The term "Aboriginal health" is often misunderstood to be synonymous with First Nations Health. That misinterpretation is a reflection of the lack of clear understanding of the Indigenous people of Canada and their three distinct cultures. For Inuit, the impact is most significant in the area of health programming. Aboriginal Health Programming continues to be First Nations focused, too often developed with

¹¹⁸ Mr. Gerald Morin (16:31).

¹¹⁹ *Ibid.*, p. 9.

¹²⁰ NAHO, Brief to the Committee, p. 9.

¹²¹ *Ibid.*, p. 7.

¹²² Ron Wakegijig, Brief to the Committee, 30 May 2001, p. 9.

minimal, if any meaningful Inuit consultation and rarely reflective of the specific linguistic and cultural needs of Inuit. Further, it does not reflect the realities of program delivery in isolated/remote communities nor acknowledge the differences in infrastructure that exist between First Nations and Inuit communities. Programs designed for First Nations are often imposed upon Inuit when, in actuality, alternative, Inuit-specific, community based programming would better meet the needs of Inuit community members.

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Witnesses involved in the hearings on Aboriginal health stressed that the traditional concepts of health and wellness in all Aboriginal communities are holistic, multifaceted and community focused:

The First Nations concept of wellness encompasses the four realms of human existence. Some First Nations refer to this concept as "the medicine wheel." It is believed that well-being and optimum health can only be achieved by addressing not only the physical aspects of health, but also the emotional, mental and spiritual needs of an individual. Those fundamentals make the First Nation view far more holistic than the biomedical model.

*The medicine wheel illustrates that First Nations people believe that a person is not only a body. If a person is to be healthy or achieve wellness then each of the four aspects of their life must be in balance. Appropriate attention must be given to each of the four aspects of a person. Not only must one be balanced, one must live in a balanced, harmonic community. Harmony must be addressed at all levels of existence and aspects of life. The prevention of illness and the promotion of good health and healthy lifestyles must be addressed through healthy communities and governments.*¹²⁴

Aboriginal people define health and illness in terms of balance, harmony, holism and spirituality rather than in terms of the Western concepts of physical dysfunction and disease within the individual. Aboriginal wellness emphasizes that solutions to health will not be effective until all factors having an impact on a problem are considered. Witnesses suggested that federal Aboriginal health policy must develop a greater focus on prevention, population health and a holistic approach to health that includes health promotion and community-based program planning. For example, the Assembly of First Nations observed:

*Poverty, ill health, educational failure, family violence and other problems reinforce one another. To break this circle, all determinants should be addressed together, in a coordinated strategy, not a piecemeal approach.*¹²⁵

¹²³ Pauktuutit Inuit Women's Association of Canada, Presentation to the Standing Senate Committee on Social Affairs, Science and Technology, May 30, 2001, p. 2.

¹²⁴ Elaine Johnson (16:26).

¹²⁵ Assembly of First Nations, Brief to the Committee, 30 May, p. 5.

The Committee was told that much of the current research has been focused on First Nations. Dr. Judith Bartlett pointed to the paucity of Métis and Inuit-specific research data. The President of the Métis National Council confirmed that there is a lack of research, data and information with respect to the health conditions and the demographics of Métis people. The Inuit Tapirisat of Canada cited the lack of Inuit-specific health information as a key challenge. Pauktuutit Inuit Women's Association of Canada echoed this concern and noted that problems arise when information from larger data sets is used in the context of another Aboriginal peoples.

*Identifying new and emerging health issues for Inuit is often complicated by a lack of "hard" data and by a reluctance to use innovative anecdotal indicators in research methodology. Inuit-specific health data is spotty at best and often extrapolated from larger pools of Aboriginal data collected mainly in southern Canada. For Inuit to adequately plan and prioritize health issues, for them to identify changing trends in disease, data must be collected by Inuit about Inuit and for Inuit. One prime example is HIV/AIDS surveillance data. Inuit statistics are extrapolations of data collected in two provinces, Alberta and British Columbia, primarily large urban centres. This has resulted in an overwhelming focus on and disproportionate distribution of funding on prevention programs for "Aboriginal" intravenous drug users, which have little, if any, relevance to Arctic Inuit.*¹²⁶

Witnesses also stressed the importance of research on Aboriginal health issues that encompasses Aboriginal-directed and controlled research. Dr. Jeff Reading of the Institute of Aboriginal Health (CIHR) told the Committee:

Undertaking research can be a significant determinant of health in its own right. It is a determinant of health because people are able to take control over factors affecting their lives. The context of native communities has been one where people outside the community have managed control for a great period of time. Now people have the opportunity to seize control and to start interpreting data about themselves.

*When people participate in the creation and understanding of knowledge about themselves, they take greater ownership of their health problems and, in so doing, become active in terms of solving those problems. Research is the first step in terms of the drive toward self-determination and improved health status.*¹²⁷

5.7 Committee Commentary

The Committee acknowledges that many reports have been written and many suggestions made for changes to benefit Aboriginal people. Repeatedly, this particular

¹²⁶ *Ibid.*, p. 8.

¹²⁷ Dr. Jeff Reading (16:61-62).

population of 1.3 million Canadians has been designated by international, national and regional bodies as the most needy in the country. In spite of the breadth of effort being undertaken, the state of health of Aboriginal Canadians and the socio-economic conditions in which they live remain deplorable.

The Committee heard about the various federal health strategies coordinated by Health Canada and the multiple programs managed by Indian and Northern Affairs Canada. Still, an enormous amount remains to be done if we are to reduce disparities in health status and socio-economic disparities between Aboriginal people and the general population. The Committee feels that, given the wide range of programs that the federal government currently manages and given its specific constitutional responsibilities, it must develop population health strategies aimed specifically at Aboriginal Canadians. These strategies must include dealing with economic conditions, environmental issues such as clean and safe drinking water, high-quality and culturally sensitive health care, healthy lifestyle choices, etc. It is also important, as suggested by Ron Wakegijig and others, to consider ways to integrate traditional healing approaches to Aboriginal health with mainstream health care.

Jurisdictional barriers should not be used as an excuse to progress slowly in this field. The Committee believes that these barriers can be overcome rapidly, and that all levels of government – federal, provincial, territorial, municipal, band and settlement – must develop a comprehensive plan that could meet the needs of all Aboriginal people in Canada. The federal Minister of Health should play a leadership role in coordinating such a plan.

The Aboriginal population is young and growing. It is imperative to develop programs that are sustainable in the long-term period. The Aboriginal community is also diverse. Programs must be designed in a way that accommodate differences in culture and community realities.

The Committee believes that undertaking research on the health of Aboriginal people can provide useful information on how to improve service provision and health outcomes. The Committee welcomes the new Institute on Aboriginal Health at the CIHR and believes it is essential that it be provided with a sufficient level of funding.



CHAPTER SIX:

HUMAN RESOURCES

Canada's health care system is a labour-intensive industry. About one in ten employed Canadians work in the health care sector. Many more help to care for their friends and family members. Therefore, our system depends on having a steady supply of appropriately distributed, well-trained and experienced health care providers and committed volunteer caregivers. (The issues concerning volunteer or informal caregivers are presented in more detail in Chapter Nine).

A complex mix of health care providers – comprising more than 30 provincially regulated professional groups – delivers care to Canadians. Table 6.1 shows the total number of licensed health care providers per 100,000 Canadians and the percentage change in these numbers over a 10-year period.

TABLE 6.1
REGULATED HEALTH CARE PROVIDERS IN CANADA
(Number Per 100,000 Canadians and Percentage Change)

	1989	1998	Change
Registered Nurses	809	750	-7.2
Licensed Practical Nurses	301	250	-17.0
Physicians	187	185	-0.5
Pharmacists	67	76	13
Dentists	52	54	4
Physiotherapists	37	49	32
Psychologists	32	40	25
Dental Hygienists	29	46	59
Chiropractors	12	16	33
Optometrists	11	11	0

Source: CIHI, *Health Care in Canada*, 2001.

Nursing is the largest health care profession. In 1998, there were 7% fewer registered nurses and 17% fewer licensed practical nurses than in 1989. Doctors are the third-

largest group of regulated health care providers. The number of physicians per Canadian in 1998 was about the same as ten years before, with only a slight decrease of about a half percent. Other categories of health care providers (except optometrists) substantially expanded their workforce over the same period. Although precise data are not available, an army of informal (volunteer) care providers provide some form of care to someone in their home with a long-term physical or mental illness or who is frail or disabled. Information from CIHI (2001) suggests that the number of informal caregivers has increased over the past decade.

There are no straightforward answers to the question of how many people are currently needed in each field, and there is much less certainty with regard to future requirements. Nevertheless, talk of a 'crisis' in health care has a good deal of plausibility in relation to human resource issues. This is particularly true with regard to the situation facing registered nurses (RNs) in Canada. But there are also shortages of other health care providers, in areas ranging from laboratory technologists to pharmacists.

Although it is more difficult to assess the overall situation with regard to physicians, there is nonetheless a long-standing problem of geographical distribution of physicians, with all rural and remote areas having great difficulty recruiting and retaining both general practitioners (GPs) and specialists. The geographic maldistribution of physicians is discussed in more detail in Chapter Ten. As well, certain specialties are experiencing serious shortages.

Without an adequate supply of providers, health care will simply not be available to the extent that Canadians expect and deserve. Questions concerning the supply, retention and management of human resources in health care are complex, broad and often overlapping, but they are of paramount importance in the context of ensuring the sustainability of Canada's health care system.

Many of the key issues, such as the method and level of remuneration of health care providers, fall largely outside the purview of the federal government. There are nonetheless other concerns - such as inter-provincial mobility, immigration, research funding, and taxation - in which federal policy plays a central role. Because of the interaction between all these factors, it is important to get as complete a picture as possible of human resource issues so that the impact of possible policies at the federal level can be properly understood and assessed.

6.1 Physicians

6.1.1 Physician Supply

The extent to which there is a looming overall shortage of physicians in Canada remains a subject of debate. Figures recently released by CIHI indicate that the number of physicians has increased in Canada over the past five years, from 54,918 in 1996 to 57,803 in 2000.¹²⁸ However, while the total number of specialists increased by 7.4 percent, the number of family physicians only grew by 3.2%. Since the Canadian population grew by 3.5 percent over

¹²⁸ CIHI, *Supply, Distribution and Migration of Canadian Physicians, 2000 Report*, Executive Summary, 9 August 2001 (available at <http://www.cihi.ca>).

the same period, the number of family physicians on a per capita basis actually declined slightly (from 95 per 100,000 population in 1996 to 94 in 2000).

Several witnesses stressed the importance of looking beyond the aggregate numbers. Thus, despite the increase in the total number of specialists, witnesses indicated to the Committee that certain specialties are experiencing shortages. For example, Dr. William Dalziel of the University of Ottawa estimated that there is a serious deficit of geriatricians. Similarly, Dr. John Radomsky of the Canadian Association of Radiologists told the Committee that Canada currently has a shortage of about 200 radiologists, and that:

*We simply do not have the manpower to provide the service. In my own practice, we have had to curtail service... to two small institutions because we do not have the manpower to provide them the service on-site. Patients have to travel. They are inconvenienced. In many cases they just do not do it.*¹²⁹

Witnesses told the Committee that physicians are already straining under the workload. Dr. Peter Barrett, President of the Canadian Medical Association (CMA), pointed out that "the average physician in Canada is currently working 53 hours per week and an additional 25 hours per week while on call."¹³⁰ Of even greater concern were the approximately 2,000 physicians who had no shared call, and were therefore "literally on call 24 hours per day, seven days per week, every day, every week, for years at a time."¹³¹

Furthermore, the aging of the physician population means that many doctors are no longer willing or able to work the long hours that have become the norm. Dr. Barrett indicated that the average age of physicians rose from 46.4 to 47.5 between 1996 and 2000, and he added that "by 2024, 40 per cent of all active physicians will be over the age of 55."¹³²

At the same time, women have made tremendous strides in changing the profile of the medical profession. Since the mid-1990s women make up over half of the medical students in the country,¹³³ and the percentage of practising female doctors increased from 25 to over 29 percent of the total between 1993 and 2000. The Task Force on Physician Supply of the Canadian Medical Forum predicts that, by 2015, women will make up 40% of the physician supply. However, data also indicate that female physicians practise fewer hours than their male counterparts, averaging 48.2 hours per week compared to the male average of 55.5 hours per week.¹³⁴ As Dr. Barrett pointed out:

¹²⁹ Dr. John Radomsky (5:7).

¹³⁰ Dr. Peter Barrett (13:6).

¹³¹ *Ibid.*

¹³² Dr. Peter Barrett (13:8).

¹³³ The Association of Canadian Medical Colleges, *Canadian Medical Education Statistics*, Vol. 22, 2000, Table 8, p. 11.

¹³⁴ Canadian Medical Forum, *Task Force on Physician Supply in Canada*, 22 November 1999, p. 11.

*Women traditionally are more caring individuals and have tended to want a better balance in life. We are not seeing that only from the women, though. We are also seeing that from our younger graduates.*¹³⁵

6.1.2 Geographic Maldistribution

There was clear agreement during the Committee's hearings on one subject: the persistent geographic maldistribution of physicians across the country. Over the past two decades, studies have repeatedly concluded that this longstanding problem has led to shortages of physicians in rural and remote areas.

The problem seems to be getting worse, as an increasing number of smaller and medium-sized communities are finding it difficult to ensure a proper supply of physicians. As of October 1999, for example, 99 communities in Ontario had been designated as underserved and were looking for a total of 534 physicians.¹³⁶ Many factors have been identified as contributing to the difficulties in encouraging physicians to locate in underserved areas, including the heavy workload, the lack of training in skills needed for rural medicine, professional isolation and lack of interest in rural lifestyle.

Rural Canada has 9 million people and is growing. It is scattered over 10 million square kilometres. The number of physicians serving this population is proportionately under half of that serving those in the cities.

Peter Hutten-Czapski, President, Society of Rural Physicians of Canada (17:12)

The Committee heard evidence suggesting that physicians setting up their practices are more likely to choose rural or remote areas if they come from those backgrounds or if their training has exposed them to the positive challenges associated with locating in these areas. Dr. Thomas Ward, chair of the Federal/Provincial/Territorial Advisory Committee on Health Human Resources, noted that "the single most important determinant as to whether an individual will work in a small community is if they are from a small community."¹³⁷

The supply of physician resources in rural Canada is discussed in more detail in Chapter Ten.

6.1.3 Physician Training and Recruitment

During the Committee's hearings, witnesses discussed the issue of whether enough students are being admitted to Canada's medical schools.

In 1991, a report by Barer and Stoddart recommended that enrolment in Canadian medical schools, along with positions in postgraduate training positions, be decreased by 10% in order to deal with a perceived unwarranted increase in physician supply.¹³⁸ Despite the report's admonishments that this recommendation not be implemented in isolation from the

¹³⁵ Dr. Peter Barrett (13:8).

¹³⁶ Dr Robert McKendry, *Physicians for Ontario: Too Many? Too Few? For 2000 and Beyond*, p. vii.

¹³⁷ Dr. Thomas Ward (13:37).

¹³⁸ Morris L. Barer and Greg L. Stoddart, *Toward Integrated Medical Resource Policies for Canada*, Prepared for the F/P/T Conference of Deputy Ministers of Health, June 1991.

others it proposed¹³⁹ (53 in all), policy-makers did precisely that. As a result, according to data from the Association of Canadian Medical Colleges, the size of first year classes in medical colleges has declined by 16 percent since 1991.

The first-year enrolment in 1997-98 of 1,577 students, or approximately 1 per 19,000 citizens, put Canada well behind other industrialized countries such as the United Kingdom (1 per 12,200 citizens) or Australia (1 per 13,500). According to Dr. Hugh Scully, President of the Task Force on Physician Supply, Canadian Medical Forum: "by 1997, there was less opportunity for a Canadian to go to medical school than for any person in any other developed country in the world for its population."¹⁴⁰ Although by early 2001 announced increases to undergraduate enrolment totalled 228 new places (a 14 percent increase over 1998) this is still below the entry level of 1983 (the peak year).¹⁴¹

While recognizing that "that there has been more movement on the part of the medical schools and the establishment in the last 18 months than in the last 20 years,"¹⁴² Dr. Scully insisted that more progress cannot be made unless additional resources are put into the system, telling the Committee that:

*If we are to have the teachers to do the work and the resources, both capital and physical, that we need, there needs to be some infusion. We think that the federal government can play a significant role in partnership with the provinces and the territories.*¹⁴³

Canada also does not offer as many postgraduate training positions as other countries, with 100 provincially-funded positions for each 100 graduates (compared to 129/100 in the United States and 140/100 in Britain). Dr. Scully pointed out that "we once had a much better capacity than we have at the present time to validate the international graduates who were qualified."¹⁴⁴

In the past, Canada has been able to rely on recruitment from abroad to fill some of the gaps. International medical graduates (IMGs) have made significant contributions to Canadian health care. Currently, almost 25 percent of Canada's physicians received their undergraduate (MD) training outside Canada. IMGs are unevenly distributed geographically and by specialty, accounting for only 12 percent of supply in Quebec but about 50 percent in Saskatchewan. One third of pediatricians, but only 22% of family practitioners are IMGs.

The United Kingdom has been the major source of IMGs. However, other countries now face many of the same shortages that confront our health care system, and there

¹³⁹ The report stated: "isolated policies on undergraduate medical school enrolment may do more harm than good if they are not combined with appropriate companion policies concerning graduates of foreign medical schools, financing of academic medical centres, residency training, and quality assurance, to name only a few." See p. 6.

¹⁴⁰ Dr. Hugh Scully (13:11).

¹⁴¹ Canadian Medical Forum, Brief to the Committee, 16 May 2001, p. 3.

¹⁴² Dr. Hugh Scully (13:19).

¹⁴³ Dr. Hugh Scully (13:14).

¹⁴⁴ Dr. Hugh Scully (13:12).

does not seem to be much sense to countries endlessly poaching each other's highly trained health care professionals. Dr. Scully insisted on this point:

*Canada traditionally would draw upon the U.K., South Africa, and some of the European countries for its medical graduates. That source has in large part stopped, not all together. Those countries are working earnestly to try to retain their own physicians and make it attractive for them to stay. The sources that we have had are not there.*¹⁴⁵

Rising tuition fees constitute a major barrier to medical enrolment. Dr. Barrett stated that:

*(...) tuition deregulation has meant that tuition for our students is becoming prohibitive. If we do not do something soon, it will only be the sons and daughters of wealthy Canadians who will be able to go to medical school and choose a career in medicine.*¹⁴⁶

The Committee was told that rising tuition fees are of great concern for students from rural Canada. For example, Dr. Thomas Ward, Chair of the F/P/T Advisory Committee on Health Human Resources, stated:

*We have seen a dramatic swing in the past four years, in our province, in the distribution of people coming into the medical school. As university tuition has gradually risen, university medical schools are a cash cow for most universities, quite frankly. We have seen that the percentage of students coming from rural Nova Scotia is dropping steadily.*¹⁴⁷

Dr. Barrett expressed similar concerns in relation to the recruitment of medical students from Canada's Aboriginal populations:

*I will give you an example from my province of Saskatchewan, where we have a huge Aboriginal population. The best way to deliver health care to them would be, especially in consideration of their culture, to have First Nation's health care providers. However, right now our system has barriers that hinder their receiving the necessary education. That is why we need to look at the whole area of post-secondary education. In particular in consideration of tuition deregulation, we must examine who we are educating today.*¹⁴⁸

¹⁴⁵ Dr. Hugh Scully (13:17).

¹⁴⁶ Dr. Peter Barrett (13:9).

¹⁴⁷ Dr. Thomas Ward (13:36-37).

¹⁴⁸ Dr. Peter Barrett (13:41).

6.1.4 The "Brain Drain"

Another controversial issue concerns the 'brain drain' of physicians, particularly to the United States. Table 6.2 gives figures for the departure and return of physicians. During the period between 1996 and 2000, the number of physicians leaving the country declined significantly, from 1.3 percent of the total physician supply in 1996 to 0.7% in 2000. Of these physicians, the majority were male, specialist physicians. Almost half received their M.D. within the past 10 years. The number of physicians who returned from abroad increased somewhat over the 1996-2000 period. Overall, fewer doctors are leaving and more are entering Canada (except for 2000). However, Canada still experiences a net loss year after year.

The international migration of physicians remains a major concern for many witnesses. Dr. Barrett said that "for every 19 physicians that go south, one comes north,"¹⁴⁹ while Dr. Scully pointed out that "we continue to lose two medical class school equivalents a year as a net loss to the United States."¹⁵⁰

TABLE 6.2
PHYSICIANS MOVING ABROAD AND RETURNING TO CANADA, 1996-2000

	Moving Abroad	Returning	Net Loss
1996	726	218	508
1997	658	227	431
1998	568	319	249
1999	584	340	244
2000	420	256	164

Source: CIHI, *Supply, Distribution and Migration of Canadian Physicians, 2000 Report*, Executive Summary, 9 August 2001 (available at <http://www.cihi.ca>).

While clearly many factors clearly influence decisions by Canadians to relocate elsewhere, it has sometimes been contended that Canada's more onerous tax regime drives high-earners to seek more favourable circumstances south of the border. Surveys among doctors, however, indicate that income is usually not the prime motivator for leaving Canada, and that the conditions under which they are able to practise their profession rank higher as a factor. Dr. Scully argued very much along these lines:

The money is no different in Alberta than North Dakota. It is not a question of money. It is the facility to take care of your patients' welfare. If we want to attract and retain physicians, we need to work together to ensure that the facilities are there so that

¹⁴⁹ Dr. Peter Barrett (13:7).

¹⁵⁰ Dr. Hugh Scully (13:12).

*physicians, nurses and others can work to provide the services that are needed by people.*¹⁵¹

In the same vein, Dr. Barrett stated:

*Like other sectors of the economy, if we are going to compete and succeed, we must provide an attractive environment to not only retain but repatriate the physicians who have left. If we are serious about a world class health care system in Canada, we must provide an environment that will attract world-class people and retain the world class people that we train.*¹⁵²

Overall, all witnesses agreed that what was needed was a comprehensive human resources plan. As Dr. Scully pointed out, "there are no quick answers or quick fixes."¹⁵³ In Dr. Barrett's words:

*We could start with a national strategy because it is a national problem. I realize a lot of health care is delivered provincially and territorially. First and foremost, we need a national plan.*¹⁵⁴

6.2 Nurses

Nurses constitute the largest group of health care providers in Canada, making up almost two-thirds of the total. There are three regulated nursing groups: registered nurses (RNs), licensed practical nurses (LPNs – also known as Registered Nursing Assistants and Registered Practical Nurses), and Registered Psychiatric Nurses (RPNs). Most of the available data refers to the situation of RNs. There are two routes to qualification as an RN: (i) diploma programs offered at community colleges, and (ii) baccalaureates of Science in Nursing at the university level. Around 90% of nurses employed in nursing have a basic diploma education. Some provinces recognize an additional extended classification of nurses, usually referred to as nurse practitioners, but there are no national standards in place, and the term is not a protected designation.

Nurses work in a great variety of settings and perform a wide array of tasks requiring a considerable diversity of skills, ranging from assisting in the treatment of acutely ill patients in a hospital setting, to planning and monitoring home care programs, to organizing and delegating workloads. Recent changes in the organization and delivery of health care have had a significant impact on the types of work being done by nurses and on the numbers of nurses available to perform them.

With the shift towards shorter hospital stays, nurses are treating more acutely ill patients as well as being asked to perform many tasks that might have been done previously by

¹⁵¹ Dr. Hugh Scully (13:40).

¹⁵² Dr. Peter Barrett (13:9).

¹⁵³ Dr. Hugh Scully (13:14).

¹⁵⁴ Dr. Peter Barrett (13:17).

other hospital staff. For example, a recent study indicates that in Canada over 42% of nurses report performing housekeeping duties, while a similar number (43.6%) report that such essential nursing tasks as comforting or talking with patients are being left undone.¹⁵⁵ Trends in health care technology also mean that nurses must accomplish more complex tasks, under great stress and with shrinking resources. In this regard, Kathleen Connors, President of the Canadian Federation of Nurses Unions, told the Committee that nurses:

(...) want to nurse in the way that they were educated to nurse. Not only do they want to perform the physical parts of the care, they also want to teach and take the time to sit on the side of the bed of someone who needs to be supported and comforted. They want to counsel, nurture and do all those things on which it is difficult to place a monetary value.¹⁵⁶

6.2.1 Supply of Nurses

CIHI reports a decline of 7.2% in the number of RNs (per 100,000 Canadians) employed in nursing between 1989 and 1998, while the number of LPNs declined by 17% over the same period (see Table 6.1). According to the Canadian Nurses' Association, there is looming crisis in the supply of qualified nursing personnel. The Association forecasts a shortfall of at least 59,000 nurses in Canada by 2011, but that this shortfall could be as high as 113,000 if all the needs of an aging population are taken into account (Table 6.3).

The importance and focus of addressing the nursing health human resource issue is imperative. We ignore it at the peril of our health care system. That is the message that we cannot state any more passionately to you as a committee looking at the future of our health care system.

Kathleen Connors, Canadian Federation of Nurses Unions (13:79)

TABLE 6.3
NUMBER OF EMPLOYED REGISTERED NURSES NEEDED
TO ADEQUATELY MEET DEMANDS IN 2011

Projected level of demand	Needed	Available	Deficit
Low	290,000	231,000	59,000
Medium	317,000	231,000	86,000
High	344,000	231,000	113,000

Source: Statistical picture of the past, present and future of RNs in Canada, CNA, 1997.

While witnesses acknowledged that the nursing shortage is worldwide in nature (with only Hong Kong registering a surplus of nurses¹⁵⁷), they also indicated that the severity of

¹⁵⁵ Aiken, Linda et. al., "Nurses Reports on Hospital Care in Five Countries" in *Health Affairs*, May-June 2001.

¹⁵⁶ Kathleen Connors (13:65).

¹⁵⁷ Canadian Federation of Nurses Unions, Brief to the Committee, 16 May 2001, p. 5.

the situation facing nursing in Canada had its origins in the cost containment strategies that were initiated by all governments across the country in the early 1990s. For this reason, they unanimously recommended that more funds be invested in the health care system so that the shortage in nursing resources could be redressed. For example, Régis Paradis, President of the Ordre des infirmières et infirmiers auxiliaires du Québec, argued that "even if the federal government had to take various steps to put its fiscal house in order, we believe that the cuts have been too drastic, carried out without meaningful consultation and also without taking into account the real needs of the public."¹⁵⁸ Similarly, Sandra MacDonald-Remecz, Director of Policy, Regulation and Research at the Canadian Nurses Association (CAN), affirmed to the Committee:

*If I were to leave with you any message, it is that I believe that investing is extremely important. We need to invest so that we can have the kind of qualified, competent worker within our health system. If you do not have that competent, qualified person, you do not have a health system.*¹⁵⁹

6.2.2 Working Conditions

The shortage of nurses has important consequences both for the delivery of health care and for the working conditions faced by health care providers who have to try to cope with fewer available people. Kathleen Connors noted that "Canada is suffering a nursing shortage that regularly closes emergency rooms and shuts operating rooms,"¹⁶⁰ and added:

*Shifts piling on top of each other take their toll on nurses who might be taking care of your mom or your child. In some cases, we are doing so having worked more than 60 hours in the week... Flight attendants have mandatory time off, but nurses do not. In the end, that is not good for nurses and it definitely is not good for those for whom we care.*¹⁶¹

Despite the overall shortage of nursing personnel, full-time employment for nurses has become less common. Sandra MacDonald-Remecz told the Committee that "the period that we have gone through saw a significant move to part-time and casual status."¹⁶² In fact, the number of nurses working part-time increased by almost 10% between 1990 and 1997 while those in full-time positions declined by about 8.5%. There was also a 37.5% increase in the number of nurses working as casuals over the same period. While it is no doubt true that some nurses prefer part-time work, nonetheless about 19% of nurses employed part-time in 1998 held down more than one job, and very few nurses voluntarily choose casual work.¹⁶³

¹⁵⁸ Régis Paradis (13:50).

¹⁵⁹ Sandra MacDonald-Remecz (13:63).

¹⁶⁰ Kathleen Connors (13:54).

¹⁶¹ *Ibid*

¹⁶² Sandra MacDonald-Remecz (13:61).

¹⁶³ Dussault, Gilles et. al., *The Nursing Labour Market in Canada: Review of the Literature*, December 1999, p. 25.

The "casualization" of the workforce has also meant that it is increasingly difficult for new nursing graduates to secure permanent positions. This tends to reduce the attractiveness of nursing as a career choice and to prolong the apprenticeship period of new graduates. In this regard, Kathleen Connors pointed out that:

*The situation facing those younger nurses is that of casual or part-time employment opportunities – working for several employers, instead of working full-time for one employer. In 1998, 48 per cent of all nurses in Canada were working part-time. It just should not be.*¹⁶⁴

According to witnesses, this contributes to a situation where 3 in 10 nurses leave the profession in the first five years after graduation.¹⁶⁵

This combination of an overall shortage of nursing personnel and under-utilization of trained nurses is also evident with regard to other categories of nursing personnel. For example, Linda Jones from the Nurse Practitioners Association of Ontario told the Committee that "of our 401 graduates, 200 of them are under- or poorly employed as nurse practitioners."¹⁶⁶ Similarly, Régis Paradis indicated that, "we (...) consider that the skills of Quebec auxiliary nurses are not being fully used,"¹⁶⁷ and that "the solution to the problem of work overload, in addition to putting more money into the system, lies partly in making more use of auxiliary nurses."¹⁶⁸

But the deterioration in working conditions for nurses extends beyond the full utilization of the different categories of nursing personnel. According to CIHI, nurses account for over 75% of workplace injuries in health care, stemming mainly from lifting and moving patients. During her testimony, Kathleen Connors indicated that:

*(...) nurses are sicker than any other worker in the country. In fact, 8.4 percent of nurses are absent from work due to illness each week. That is twice the national average.*¹⁶⁹

Witnesses also raised concerns that there are many ways in which nurses are not being accorded the respect they deserved for their essential contribution to the health care system. Amongst the issues that have been raised as critical to retaining nurses in the profession are appropriate workload, adequate continuing education, career mobility, flexible scheduling and deployment, professional respect and good wages. Witnesses argued that what is needed to retain nurses in the profession in Canada is a comprehensive approach to ensuring a healthy work environment that also allows nurses sufficient autonomy in carrying out their duties and room for ongoing professional development. The Canadian Nurses Association identified seven areas of action needed to retain nurses:

¹⁶⁴ Kathleen Connors (13:55).

¹⁶⁵ Canadian Nurses Association, Brief to the Committee, 16 May 2001, p.4.

¹⁶⁶ Linda Jones (13:46).

¹⁶⁷ Régis Paradis (13:51).

¹⁶⁸ Régis Paradis (13:65).

¹⁶⁹ Kathleen Connors (13:54).

- Improve work design
- Facilitate use of full scope of practice
- Provide support for professional development and continuous learning via taxes, training and time
- Identify career opportunities and offer career planning
- Support flexible scheduling
- Provide accessible professional supports
- Improve access to research on clinical disease issues and provide time to review and stay up-to-date.

6.2.3 Training and Recruitment in Nursing

The Committee was told that there are many difficulties in recruiting enough young people to train as nurses. Witnesses contended that nursing, which remains an overwhelmingly female profession,¹⁷⁰ is no longer as attractive a career option for young women entering university as it was for the previous generations. Sandra MacDonald-Remecz noted that "we have seen a 50 per cent reduction in the number of graduates in nursing over the last 10 years."¹⁷¹

Figures indicate that not only are fewer new nurses entering the profession each year, but those that do are older than previously. The number of new nurses graduating each year was in the 10,000 per year range in the 1970s and in the 8,000 per year range in the 1980s. Since then, each class has become increasingly smaller and only 5,500 nurses graduated in 1995. Witnesses pointed to the solution adopted in the Republic of Ireland, where they waived all tuition fees for nursing students, as being worthy of emulation.

The issue of continuing education for nursing was also raised at the Committee's hearings. The lack of opportunity for ongoing education was pointed to as part of the problem explaining the attraction of new graduates in nursing to the United States. While no exact figures are available, some media reports have suggested that as many as 20,000 Canadian nurses have been recruited by American hospitals. According to Sandra MacDonald-Remecz:

*(...) when we look at why the Americans are so successful in recruiting our new graduates, we see that it is because they promise continuing education opportunities right from the time they sign on."*¹⁷²

¹⁷⁰ According to Kathleen Connors, 96 per cent of nurses are women (13:65).

¹⁷¹ Sandra MacDonald-Remecz (13:61).

¹⁷² Sandra MacDonald Remecz (13:61-62).

One way of facilitating ongoing education was suggested by Kathleen Connors:

*(...) one of the issues that we continue to promote and hope that there will be support for, is the use of employment insurance dollars. There is a surplus. If skilled trades can access EI dollars to continue to advance their education, why can nurses not do the same thing? We need to look at that. Why does EI prevent access of dollars for post-secondary education?*¹⁷³

Another solution was proposed by Ms. MacDonald-Remecz:

*Signing bonuses are another incentive - which, in a field like health care it sounds almost heretical to be taking on that kind of orientation. However, it is something that many organizations are realizing that they may need to do. In other words, we need to be more aggressive and recognize that people will not just naturally come into the profession.*¹⁷⁴

6.3 Other Health Care Providers

Many other health care providers, from pharmacists to laboratory technologists to ultrasound technicians, have voiced similar complaints to the ones expressed by physicians and nurses over human resource shortages and deteriorating working conditions throughout Canada's health care system.

For example, the Canadian Society for Medical Laboratory Science (CSMLS) predicts a nation-wide shortage of general medical laboratory technologists within the next 5 to 15 years. Moreover, medical laboratory technologists are aging: 12% of the current workforce will be eligible to retire in 5 years, 15.8% in 10 years and another 16.6% in 15 years. By the year 2015, 44.4% of the medical laboratory workforce will either have retired or will be eligible to retire.¹⁷⁵ In its brief, the Society stressed that the number of training positions would have to be increased significantly to avert the shortage of technologists. Medical laboratory technologists also stressed the need for ongoing training to enable them to operate new high-tech equipment. Moreover, the medical laboratory workforce is also experiencing high levels of burnout and fatigue. Finally, the establishment of a national data base was recommended to develop accurate projections of future human resource requirements in health care.

Chiropractors are mostly neuro-musculoskeletal physicians. They are currently unable to utilize all the tools of the profession and are hampered clinically. We are denied hospital access, sometimes unable to treat lifelong patients who become institutionalized. We are denied x-ray access and access to blood and urine analysis.

Dr. Tim St. Denis, President, Canadian Chiropractic Association (13:85)

¹⁷³ Kathleen Connors (13:78).

¹⁷⁴ Sandra MacDonald Remecz (13:61).

¹⁷⁵ Canadian Society for Medical Laboratory Science, Brief to the Committee, 26 April 2001, p. 2.

The Canadian Pharmacists Association also pointed to a current shortage of pharmacists. This shortage is not unique to Canada, but is a problem faced in many countries including the United Kingdom and the United States. The low supply of pharmacists translates into increased numbers of vacancies, longer times to fill vacancies, increases in overtime hours, and wages rising in excess of the cost of living. A recent study suggests that well over 2,000 additional pharmacists could readily find work in Canada.¹⁷⁶ In the context of the growing evidence of drug-related complications, an aging population, and rising public expectations, it is anticipated that pharmacists will be increasingly valued and demanded for their knowledge, skills, and cost-effective contribution to the health care system. The study also mentions that currently available information offers an incomplete picture of the labour market for pharmacists.

Chiropractors' representatives told the Committee about their particular situation. Chiropractic services are not considered as medically necessary under the *Canada Health Act*. Only a few provinces provide public insurance for chiropractic services. The Committee was told that there are over 5,000 practising chiropractors in Canada and that approximately 4.5 million Canadians use their services every year. In its brief, the Canadian Chiropractic Association stated that chiropractors are not being utilized by Canada's health care system in the most effective way. There are policy and legislative barriers to chiropractic services which result in inequitable resource allocation irrespective of patient choice, efficacy or cost-effectiveness. For example, chiropractors do not have hospital privileges, they cannot refer their patients to publicly supported X-ray facilities or diagnostic laboratories, or render services to their patients who may require hospitalization.

6.4 Primary Care Reform

Testimony before the Committee by health care providers, particularly physicians and nurses, clearly indicated that a more rational and efficient use of human resources requires a rethinking of the organization and the funding of primary health care delivery in Canada.

"Primary health care" refers to the first level of care, and is usually the first point of contact that people have with the health care system. Primary health care settings support individuals and families to make the best decisions for their health. Primary health care services need to be:

- coordinated;
- accessible to all consumers;
- provided by health care professionals who have the right skills to meet the needs of individuals and communities being served; and
- accountable to local citizens through community governance.

Multidisciplinary teamwork must therefore be a vital part of primary health care. The goal of this teamwork is not to displace one health care provider with another, but rather to look at the unique skills each one brings to the team and to coordinate the deployment of these

¹⁷⁶ Peartree Solutions Inc., *A Situational Analysis of Human Resource Issues in the Pharmacy Profession in Canada*, Canadian Pharmacists Association, May 2001 (available at <http://www.cdnpharm.ca/>).

skills. Clients need to see the health care provider who is most appropriate to deal with their problem.

The way in which health care is currently delivered in Canada does not normally reflect a primary health care philosophy (although Community Health Centres are an example of organizations that do deliver health services using such a philosophy). Health services are often not coordinated, nor are they being provided by the most appropriate practitioner; as well, the knowledge and skills of many practitioners are not being fully utilized.

The need for significant changes to the way primary health care is delivered has been the principal thrust of the recommendations of a number of provincial health care reviews, notably the Sinclair Commission Report in Ontario, the Clair Commission Report in Quebec and the Fyke Commission Report in Saskatchewan. In fact, the importance of changing the way primary health care is delivered is so widely established that, in September 2000, provincial and territorial governments all agreed to accelerate primary health care renewal.

The federal government is actively supporting the efforts of provinces and territories in primary health care reform and renewal. More precisely, it has established a Primary Health Care Fund of \$800 million over four years (2000-2004) to support the transitional costs of implementing systemic, large-scale, primary health care initiatives. Some 70% of the funds are to be devoted to major provincial and territorial reforms, while the remaining 30% is going to support national and multi-jurisdictional initiatives related to advancing primary health care reform.

Dr. Thomas Ward indicated that Canadians and physicians support the idea of moving towards multidisciplinary primary care teams:

There was a survey last fall in which, when Canadians were asked if they would rather receive their care from a family physician or from a primary care team that included a family physician, their response was 4 to 1 in favour of the team. They would much rather have a team of health care providers. Our vision for the future is full integration wherever primary health care is provided through practising within interdisciplinary teams.¹⁷⁷

The Committee was also told that reform of primary care is clearly central to the possibility for the full deployment of the additional skills possessed by nurse practitioners. Primary health care nurse practitioners are experienced registered nurses with additional nursing education that enables them to provide individuals, families and communities with health services in the areas of health promotion, disease and injury prevention, cure, rehabilitation and support. Their skills include the ability to: provide health screening activities such as PAP smears; to diagnose and treat minor illnesses such as ear and bladder infections or minor injuries such as sprains; to screen for the presence of chronic disease such as diabetes; and to monitor people with stable chronic disease such as hypertension. They function within the full scope of nursing practice and are neither second-level physicians nor doctor's assistants. As Linda Jones, from the Nurse Practitioners Association of Ontario, said:

¹⁷⁷ Dr. Thomas Ward (13:21).

*A very important...point is the lack of public understanding of the role, impacts and utilization of nurse practitioners. If we are seen as physician replacements – you cannot see your family doctor, you must see your nurse practitioner instead – that will not enhance or increase public acceptance of us.*¹⁷⁸

While nurse practitioners are an important part of primary health care reform, there remain considerable barriers to their full integration into the system of primary health care delivery. Ms. Jones pointed out that, in Ontario:

*The existing legislation, although we are incredibly excited about the fact that we now have our own autonomy to do our role, leaves us with barriers. For example, the public hospitals act does not allow us to perform our role in hospitals.*¹⁷⁹

The Committee was told that the barriers are not exclusively legislative or organizational, however. They are also created by the way that money is distributed throughout the health care system, and, in particular, by the overwhelming reliance on fee-for-service payment as the main method for remunerating physicians. Fee-for-service tends to actively discourage physicians from promoting teamwork, as their individual remuneration depends on the number of patients they see. In her testimony, Linda Jones pointed to another way that fee-for-service payment prevents full collaboration amongst health care providers:

*(...), although we have skills and knowledge to refer to medical specialists, the current payment system under OHIP does not give a specialist the full consulting fee if the referral comes from nurse practitioners. Therefore, they decline our referrals.*¹⁸⁰

The main alternatives to fee-for-service payment are salary- and capitation-based systems, where physician practices are remunerated based on the number of registered patients. William Tholl, Secretary General and Chief Executive Officer of the Canadian Medical Association (CMA), told the Committee that physicians are willing to consider other forms of remuneration:

*The CMA would suggest, as I would also suggest, that the form of payment should follow the functions that you identify for the physician in the system. Clearly, physicians and other health professionals working in rural and remote areas have a different function in the system as compared to those that work in downtown Toronto.*¹⁸¹

¹⁷⁸ Linda Jones (13:47).

¹⁷⁹ Linda Jones (13:46).

¹⁸⁰ Linda Jones (13:47).

¹⁸¹ William Tholl (17:18).

6.5 Committee Commentary

The Committee is convinced that addressing the issues relating to human resources in health care must be amongst the top health care policy priorities for all levels of government. What is needed is a country-wide, long-term, made-in-Canada, human resources strategy. The federal government could play an important role in coordinating and implementing such a strategy. Of course, not only do the provinces and territories have the responsibility for the delivery of health care to their populations, they are also responsible for education and training. The challenge is therefore to find a way to develop such a strategy in a manner that is acceptable to the provinces and territories.

In the past, the federal government has contributed capital funds toward the creation of new health services training programs, notably in the 1960s when it was involved in the expansion of a number of medical schools. The federal government has also contributed to training programs for some health professionals under the various federal training programs which have existed over the years. Moreover, the federal government, through its support for such institutions as the Medical Research Council and now the Canadian Institutes for Health Research, has helped support graduate students pursuing health research for more than 40 years.

It is important that the federal government continue this involvement in order to help resolve the many health care human resource challenges facing the country. This includes assisting the provinces in their efforts to reform primary health care, because ways of effectively deploying human resources are intimately tied to the reorganization of primary health care.



CHAPTER SEVEN:

HEALTH RESEARCH

Health research is about creating new knowledge with respect to health and health care. Health research can lead to the development of new or improved drug therapy, treatment, medical equipment and devices; as well, its results provide information on new ways of organizing and delivering health care. Health research contributes to a better understanding of the complex interplay of the determinants that affect our health and susceptibility to disease.

With the creation of the Canadian Institutes for Health Research (CIHR), the federal government expanded its definition of health research. More precisely, it moved beyond its previous emphasis on basic and applied research – mostly biomedical and clinical research activities – to encompass a wider range of disciplines and components. This shift was part of the general movement toward a population health approach that acknowledges that health is broader than health care, as well as a response to the increasing need to obtain evidence-based information to allow for effective health care reform and renewal. Table 7.1 summarizes the four main research components now financed by the CIHR.

TABLE 7.1
CIHR – THE FOUR COMPONENTS OF HEALTH RESEARCH

Biomedical research	<i>Pertaining to biological organisms, organs, and organ systems</i>
Clinical research	<i>Involving direct observation of people undergoing medical care</i>
Health services research	<i>Embracing health care delivery, administration, organization and financing</i>
Population health research	<i>Focusing on the broad factors that influence health status (socio-economic conditions, gender, culture, education, etc.)</i>

Research plays a vital role in the field of health and health care. The Committee held two sets of hearings on health research. Testimony was heard with respect to: 1) the role of the federal government in health research; 2) genetics and genomics research as the burgeoning research areas and their implications on health and health care; and 3) the benefits and challenges of health research.

7.1 Federal Role in Health Research

The federal government plays a major role in supporting health research carried out in universities, teaching hospitals and research institutes (extramural research), as well as in its own laboratories (intramural research). According to Kimberly Elmslie, Acting Executive

Director, Health Research Secretariat, Health Canada, the federal government's role in health research and health care research is multi-faceted and includes:

- Setting research priorities;
- Undertaking research in areas related to direct federal responsibilities (e.g., health protection, risk management, Aboriginal health);
- Funding extramural research and related science and engineering research;
- Supporting the training and development of researchers (e.g., through the Canada Research Chairs Program, the CIHR and the other granting councils);
- Funding research infrastructure (through the Canadian Foundation of Innovation);
- Supporting information and systems management (CIHI and Statistics Canada);
- Funding Networks of Centres of Excellence (Industry Canada and Health Canada).¹⁸²

Only a relatively small proportion of federally funded health research is conducted in federal government facilities (less than 20%). Federal facilities in which health research is performed include Health Canada, Statistics Canada, the National Research Council, Human Resources Development Canada and Environment Canada (in partnership with Health Canada). For the most part, health research funded by the federal government is extramural and takes place in universities and hospitals (72%), private non-profit organizations (6%), and business enterprises (1%).¹⁸³

The principal federal funding body for health research is the CIHR (see Table 7.2). In fact, the CIHR is the only federal entity whose budget is entirely devoted to health research. Its creation in 1998 involved the merging of the Medical Research Council of Canada with the National Health Research and Development Program (NHRDP), Health Canada's main financing instrument for extramural health research. Health Canada is also involved in multiple internal research activities, as well as in extramural research, which are all devoted to the health field. There are, however, other research-oriented bodies supported by the federal government along with other partners where the focus is entirely health-related. These include the Canadian Health Services Research Foundation (CHSRF), the Canadian Institute for Health Information (CIHI), and the Canadian Coordinating Office for Health Technology Assessment (CCOHTA).

In addition, several secondary sources of federal health research funding are available. The federal government is responsible for a number of research councils, agencies and programs where only a portion of their budget goes to health-related research. These include the Natural Sciences and Engineering Research Council of Canada, the Social Sciences and Humanities Research Council, the Canada Foundation for Innovation, the Canada Research Chairs, and the Networks of Centres of Excellence (it is worth noting that seven networks, of

¹⁸² Kimberly Elmslie, Health Research Secretariat (Health Canada), Brief to the Committee, 26 April 2001, p. 1

¹⁸³ Sonya Norris, Nancy Miller-Chenier and Odette Madore, *Federal Funding for Health Research*, TIPS 56E, Parliamentary Research Branch, Library of Parliament, 11 December, 2000.

the currently-funded 18 NCEs, conduct health research in the fields of: arthritis, bacterial diseases, vaccines and immunotherapeutics for cancer and viral diseases, stroke, health evidence application, genetic diseases, and protein engineering).

TABLE 7.2
Primary Sources of Federal Health Research Funding in 2000

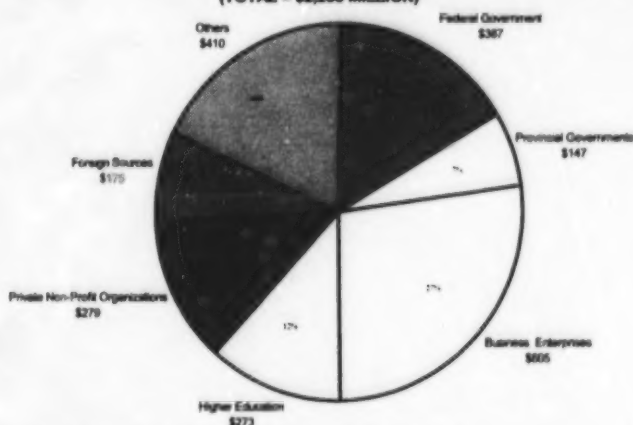
Primary Federal Funding Source	Date Established	Federal Contribution in or around 2000
Canadian Institutes of Health Research	2000	\$402 annual
Health Canada Health Transition Fund	1997	\$150 million for 3 years
Health Canada Population Health Fund	1999	\$14 million annual
Health Canada Canadian Health Infostructure Partnerships program (CHIPP)	2000	\$80 million over 2 years
Health Canada Centres of Excellence for Children's Health	2000	\$20 million over 5 years
Health Canada Centres of Excellence for Women's Health	1996	\$12 million over 6 years
Canadian Health Services Research Foundation (CHSRF)	1996	\$65 million over 5 years
CHSRF Nursing Research Fund	2000	\$2.5 million annual (for 10 years)
Canadian Institute for Health Information (CIHI)	1994	\$328 million over 3-4 years (1999-03)
CIHI Canadian Population Health Initiative	1999	\$20 million over 4 years (1999-03)
Canadian Coordinating Office for Health Technology Assessment	1989	\$3.7 million (2000) - \$4.34 million per year (2001-04)

Source: Sonya Norris, Nancy Miller-Chenier and Odette Madore, *Federal Funding for Health Research*, TIPS 56E, Parliamentary Research Branch, Library of Parliament, 11 December 2000.

Overall, the federal government plays an important role in funding health research in Canada. Graph 7.1 indicates that, in 1998, almost \$370 million of federal funding was allocated to health research. This was prior to the establishment of the CIHR. However, the proportion of health research funding provided by the federal government declined steadily from a high of 28% in 1992 to 16% in 1998. Since 1994, the pharmaceutical industry has been

the leading source of funds for health research. The federal government believes that its position in terms of health research funding will greatly improve as a result of the establishment of the CIHR along with additional investment announced in both the February 2000 budget and the October 2000 Economic Statement and Budget Update. The federal government also provided an additional grant of \$140 million in February 2001 to Genome Canada bringing their total budget to \$300M.

GRAPH 7.1: SOURCES OF FUNDING FOR HEALTH RESEARCH IN CANADA, 1998
(TOTAL = \$2,256 MILLION)



Source: Statistics Canada, "Estimates of Gross Expenditures on Research and Development in the Health Field in Canada, 1970 to 1998", in Science Statistics, Service Bulletin, Vol. 23, No. 4, July 1999.

The whole health research community welcomed the new infusion of federal funds. For example, Dr. Barry D. McLennan, Chair of the Coalition for Biomedical and Health Research (CBHR), stated:

*The [federal government] has done its part recently. During the past few years, it has created a modern, new health research funding agency, introduced a broad range of new funding programs for health researchers, announced funding for infrastructure support to ensure that research facilities are conducive to innovation and developed policies that will attract world class research and researchers in Canada. These initiatives deserve praise for far-sightedness and for the important momentum that they have created with the health research community in Canada.*¹⁸⁴

The Committee was told that, while the increase in federal funding represents significant support for health research, it does not bring Canada to a favourable position worldwide. In 1997, Canada devoted only 1% of its total health care spending to health research and ranked 6th behind the United Kingdom (6.5%), France (3.7%), Japan (2.4%), the United States (1.7) and Australia (1.4%). The same year, Canada ranked 5th among 8 OECD countries in terms of overall spending on health research expressed in PPP per capita.¹⁸⁵ Furthermore, the

¹⁸⁴ Dr. McLennan, *The Improving Climate for Health Research in Canada*, Brief to the Committee, 9 May 2001, p. 2.

¹⁸⁵ The conversion into purchasing power parity (PPP) per capita eliminates price disparities between countries and evaluates spending that is adjusted to population size.

role of the central government in financing health research, expressed in PPP per capita, was far more important in the United States, the United Kingdom, France and Australia than in Canada. For example, the American government provided four times more funding per capita to health research than did the Canadian government. This was prior to the establishment of the CIHR.

Witnesses unanimously recommended that the federal government's share of total spending on health research should be increased to 1% of total health care spending from its current level of approximately 0.5%. In their view, this would bring the level of the federal contribution to health research more in line with that of central governments in other countries. According to Dr. Alan Bernstein, President of the CIHR, such federal investment is essential to maintain a vibrant, innovative and leading-edge health research enterprise:

However, despite the significant research funding increases represented by the 1999 budget commitment, Canada does not compare favourably with its major competitors in terms of the amounts government-sponsored agencies dedicate to health research. In many ways, Canada is simply playing catch-up with the United Kingdom, France and the United States, which have increased funding to health research between 30% and 50% during the past decade. Canada's cumulative increase, even taking into account the CIHR commitment, was slightly more than 10% during the same period. In this fiscal year, the U.S. National Institutes of Health has received five times the funding enjoyed by the formed Medical Research Council (MRC) on a per capita basis. Even after the CIHR commitment is fully realized in 2002, it is estimated that the U.S. will be providing as much as four times the funding per capita than will Canada.

Murray Elston, President, Rx&D, Brief, p. 7.

*(...) health care is Canada's largest knowledge-based industry. If I were a CEO of Health Canada Inc. and said that we are going to double our spending to 1 per cent of our total budget on research, you would fire me if you were on the board. You would say that 1 per cent is ridiculously low for a knowledge-based industry. Despite Nortel's problems, Nortel and all the high-tech companies down the road here in Ottawa spend between 20 per cent and 40 per cent of their revenues on research. How else can they be at the leading edge?*¹⁸⁶

7.2 Genetics and Genomics

Witnesses told the Committee that health research in Canada and throughout the world is currently undergoing a scientific revolution. They explained that this revolution in health research is fuelled by the ongoing advances in genetics and genomics (see Table 7.3 for some definitions).

In the view of witnesses, the revolution in health research can be seen as a significant driver of change in Canada's health care system. For example:

- Genetic research offers a new capability to predict, decades in advance, who is susceptible to a given disease. This new capability is based on the

¹⁸⁶ Dr. Alan Bernstein (9:17).

identification of the gene(s) that cause or predispose an individual to certain diseases. Dr. Bernstein told the Committee that we already have this capability now for about 5-10% of all breast and colon cancers, Alzheimer's Disease, and other less common diseases. Because early diagnosis can often lead to better health outcomes at lower cost, experts in health research predict that the next 10-20 years will be marked by a significant shift in health care delivery from disease treatment to prevention strategies.

Ten to 20 years from now, our health care system will undoubtedly be vastly different than it is today. These profound tectonic shifts will be largely driven by science. The health care sector is truly Canada's largest knowledge-based industry, and to contribute to this global health revolution for the health and wealth of all Canadians our country needs a robust, innovative and evidence-based health care system. We require a culture that can respond to change, that can innovate and originate change, a culture that recognizes and awards excellence and evidence-based decision making.

Dr. Alan Bernstein, CIHR (9:10)

TABLE 7.3: BASIC GENETIC LEXICON

Human Cells	All living organisms are composed of one or more cells. They are the individual units from which tissues of the body are formed. The human body is composed of some 100 trillion cells.
DNA	Abbreviation for "deoxyribonucleic acid," the chemical building blocks of which genes are constructed.
Chromosome	Discrete unit of the genome that carries many genes and consists of histone proteins and a very long molecule of DNA that is tightly coiled. Human cells (except the reproductive and red blood cells) carry 23 pairs of chromosomes, one chromosome of each pair having originated from either genetic parent.
Genes	The unit of hereditary material, which is the physical basis for the transmission of the characteristics of living organisms from one generation to another. Genes are made of DNA and occupy a specific place on a chromosome.
Genome	The entire hereditary or genetic material contained in a cell, including both the nuclear and mitochondrial DNA. The human genome project involves research and development activities aimed at mapping and sequencing the entire human genome.
Stem Cells	The primitive undifferentiated cells that have the potential to differentiate into any cell type. Stem cells have been identified in embryonic, foetal, child and adult sources but embryonic stem cells are believed to have the greatest potential in terms of differentiating into virtually any cell or tissue type.
Genetics	Genetics is the study of traits (genes) that are passed on from parents to offspring and the variation of those traits in individuals.
Genomics	The study of genes and their role in an organism's structure, growth, health and disease. Genomics is distinct from genetics in that it acknowledges that rarely is the manifestation of a disease dependent solely on the presence of a single gene. More often disease will involve multiple genes, compounded perhaps by the absence of another, and influenced by seemingly random environmental factors that are difficult to define.

Biotechnology	The means of manipulating other organisms to provide desirable products for human use. Biotechnology in the field of health and health care is used for disease surveillance, diagnosis, treatment and prevention. It permits the identification of disease agents where conventional means do not succeed, allows better tracking of pathogens, facilitates earlier detection of disease and provides therapeutic products and processes. Biotechnology is also used as a product base in the health industrial sector, and as an enabling technology in health sciences.
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Source: Library of Parliament. Adapted from the National Human Genome Research Institute, National Institute of Health (US), *Genetics – The Future of Medicine* (www.nhgri.nih.gov); Industry Canada, *The Biotechnology Gateway* (<http://strategis.ic.gc.ca/SSG/bo01376e.html>), and Kimball R. Nill, *Glossary of Biotechnology Terms*, (<http://biotechterms.org>).

- New insights into the molecular mechanisms that underlie most illnesses will enhance our understanding of the basic biology of disease. This will change how disease is diagnosed and how it can be treated. It will also change how drugs are designed. An entirely new generation of drugs, which is likely to be more effective, with fewer side-effects but more expensive, will be designed according to the molecular pathology of disease. These changes will have a significant impact on Canada's health care system.

We know already that early diagnosis provides a better and cheaper therapy than anything after-the-fact. If genomics research can help us identify the conditions to which we are most susceptible, then it will be possible to take preventative measures early in the process. As a result, during the coming decades, it is likely that disease management will shift from treatment of contracted conditions to prevention strategies.

Dr. McLennan, Brief, p. 4.

- Genetic research will change the focus of the practice of medicine from a generalized to a highly targeted, individualized approach. Currently, clinical practice guidelines and provincial drug formularies are developed on the basis of disease uniformity. With advances in health research, however, we will move towards tailored care, based on patient variability.
- Stem cell technology is another good example of the potential impact health research can have on health and health care. Currently the research community is very enthusiastic about the potential of stem cells, particularly embryonic stem cells. It is anticipated that research on these cells will lead to treatments for serious diseases such as Parkinson's and Alzheimer's. It is also widely believed that these cells can ultimately be manipulated to grow into virtually any tissue or organ thus providing much needed organs for transplant. Recent research has been successful in 're-programming' undifferentiated stem cells into producing insulin. This is a function only performed by pancreatic islet cells. Should this treatment prove to be successful in the treatment of diabetes (a cure really) it will not only improve the quality of life for the individual, but will save the cost of care for the primary disease and its secondary complications as well. The federal government has unveiled, under its Proposals for Legislation Governing

Assisted Human Reproduction, draft legislation that would allow for embryo research, including stem cell research. The proposals, which include regulation of such research, is currently under review by the House of Commons Standing Committee on Health.

The genetics and genomics revolution is raising ethical, legal and social issues. As Dr. Bernstein clearly pointed out:

*The ability to predict disease, decades in advance, has profound implications for how we view our lives and make life decisions. How will this new genetic information affect our decisions about whether to have children – and what should we tell them? What should they tell us? Do our employers and insurance agents have the right to access our genetic information?*¹⁸⁷

In the same vein, Ms. Elmslie noted:

*We are seeing rapid advances in science and technology. They are very exciting. However, we cannot forget the social and ethical issues that they raise for us as a society and as a population. Research that moves us forward, for instance, in genetics and genomics, needs to be accompanied by a vigorous research agenda in the ethical and social aspects and implications of that research. The purpose of the agenda is not in any way to prevent bringing the benefits of that research to the population. Its purpose is to understand the impacts on what we value as a society and what we need to do to put the pieces together in a way that Canadians can understand and make informed choices concerning the options that become available to them.*¹⁸⁸

With respect to stem cells, the CBHR stressed in its brief the need to protect basic human rights and guard against long-term damage to life and the environment. The Coalition suggested that a national oversight body should be established to provide ethical review of all publicly and privately funded research using human embryo or foetal tissue, including embryonic stem cell research. Full ethical review should include review by both the local research ethics board and the national oversight body.

7.3 Benefits and Challenges of Health Research

The benefits of health research are significant. Health research leads to improved drug therapy and diagnosis, enhanced prevention, and targeted treatment. Health research fosters the creation of knowledge-based employment and it contributes to stemming the brain drain. The Committee heard that it improves the personal and economic health of Canadians:

¹⁸⁷ Dr. Alan Bernstein, Brief to the Committee, p. 5.

¹⁸⁸ Kimberly Elmslie, Health Canada (9:24).

*Health research provides enormous economic, social and health care rewards to society. The jobs that are created by these investments are high quality, well-paying, knowledge-based positions that generate worldwide recognition for Canadians. These investments also support the rejuvenation of academic institutions across the country. They help train new health professionals in the latest technologies and techniques and they provide important support for the health care delivery system in Canada. Most importantly, the results of these activities lead directly to better ways to treat patients, which ensures a healthier and more productive population.*¹⁸⁹

Dr. Pat Armstrong from the Centre for Excellence in Women's Health told the Committee that health research is important not only to discover new treatments and drug therapies; it is also essential to chart the future of the Canadian health care system and the impact of changes on women, men and children in their different physical, economic, social and cultural locations across the country. In her view, sex and gender differences should be taken into account in health research.¹⁹⁰ Failure to do so makes health research partial at best and greatly incomplete at most:

For example, it has become increasingly clear that some forms of medical intervention in the natural events of women's lives, such as pregnancy, childbirth and menopause, are costly and unnecessary. Other significant issues, such as the extent and impact of violence and stress on women's health, have been overlooked or ignored.

*Women are often under-represented in clinical trials of new medical treatments and drugs. This can be true even when the product or therapy under review is intended to treat ailments like heart disease – the number one killer of Canadian women. New therapies are often approved without a clear understanding of how they will affect women and men differently.*¹⁹¹

Ms. Elmslie told the Committee that: "Research is a critical element and important tool, but the tool is only as good as the use we make of it. Without investing in the transfer [of knowledge] (...), we are really missing the opportunity to be able to see positive outcomes in the health of the population."¹⁹² The outcomes of health research must be made available to policy-makers, health care providers as well as to the public.

Dr. Bernstein told the Committee that the CIHR will be developing a multi-faceted "knowledge translation" initiative. He explained that a website called "Research Net" will be available for the use of all Canadians, be they researchers, health care providers, consumers, etc. The site will contain information for everyone, from students in grade 6 doing a science project on health, to health professionals learning the very latest in the field, to researchers who want to know how to apply for funding, to policy-makers across the country

¹⁸⁹ Dr. McLennan, Brief to the Committee, p. 2.

¹⁹⁰ While sex refers to the biological differences between men and women, gender refers to the social or cultural roles and characteristics that define them.

¹⁹¹ Centre for Excellence in Women's Health, *Champions of Research Innovation*, p. 2.

¹⁹² Kimberly Elmslie (9:23).

who are interested in the latest evidence-based decision-making issues with which they must deal. It is expected to be ready in late 2002.

One organization, the Canadian Health Services Research Foundation (CHSRF), is dedicated to knowledge transfer. The CHSRF is a not-for-profit organization established with federal funding whose mission is to sponsor and promote applied research on the health care system to enhance its quality and relevance, and to facilitate its use in evidence-based decision-making by policy-makers and health care managers. Similarly, CIHI is another entity that brings data into the decision-making process.

With respect to the lack of information to the general public, Murray J. Elston, President of Canada's Research-Based Pharmaceutical Companies (Rx&D), told the Committee:

The issue of public awareness and public education is also very important. This is an area of which the public is well-aware, but not necessarily well-informed. Today concerns about genetic research in medicine, animal cloning, embryo research and genetically modified foods are mixed in the public consciousness. It is vital that the level of public understanding is increased, so that the role of genetics in medical research is separated from the sensationalism of the newspaper headlines.¹⁹³

Another major challenge in health research is the low level of training capacity. The Committee heard that academic health centres are currently under-funded and unable to respond to the challenges of contributing to Canada's success in developing a globally competitive health research sector. There is also great regional disparity in terms of health research capacity. For example, certain medical faculties and academic health centres in the Atlantic Provinces and in the Prairies lack the capacity to sustain and nurture growth. Dr. McLennan told the Committee:

Given the paucity of well-trained and talented clinical faculty in many specialities across the country, those provinces with healthy budgets are able to offer salaries and resources that attract away these critical faculty from the under funded centres. The less-well resourced provinces then face a double jeopardy – the inability to recruit replacement faculty and the added stress and workload that fall upon those who are left behind. This scenario curtails teaching and research time, which eventually entices the remaining group to look for better opportunities in more financially endowed centres. This internal competition for talented people is counter-productive. It is an urgent matter that requires rapid attention at the federal level.¹⁹⁴

¹⁹³ Murray J. Elston, *The Implications of the Revolution in Genetics Research on Public Policy Development*, Brief to the Committee, 9 May 2001, p. 4.

¹⁹⁴ McLennan, Brief to the Committee, pp. 8-9.

7.4 Committee Commentary

The Committee acknowledges that the federal government has, in recent years, contributed to the strengthening and better integration of the health research infrastructure. In particular, the creation of the CIHR in April 2000 – a model unique in the world – is a key element in ensuring that Canada is at the leading edge of the knowledge-based economy.

The Committee also agrees with the witnesses that Canada needs a robust, integrated and proactive health research sector. However, OECD data clearly show that Canada does not compare favourably with its major competitors in terms of public funding for health research. The role of central governments in many countries in financing health research is far more important than it is in Canada. It is imperative that the federal government addresses this concern.

Health research and innovation will be a major driver of change in Canada's health care system in the coming years. The knowledge gained as a result of health research translates directly into better diagnosis, treatment, cure and prevention of many diseases. The federal government's strategic investments in programs such as CFI, CHSRF, CIHR, Genome Canada and the Canada Research Chairs today will pay huge dividends for our health care system tomorrow.

We also agree that rapid advances in genetics and genomics will revolutionize health care delivery in unprecedented ways. This highlights the need for multi-disciplinary research that will examine the societal costs and benefits, the ethical considerations and potential unintended impact of advances in genetic and genomic research.

The Committee also concurs with the witnesses in regard to the transfer of knowledge generated by health research. The dissemination of health research results should reach everyone – government officials and policy-makers, health care providers and the general public. In our view, this will greatly enhance evidence-based decision-making with respect to health and health care to the benefit of all Canadians.



CHAPTER EIGHT:

HEALTH-RELATED INFORMATION: A CANADIAN HEALTH INFOSTRUCTURE

Health and health care are, and have always been, two fields that rely intensively on information. With the right information, a health care provider can order the right treatment, prescribe the most appropriate medication, or recommend the best preventive approach. With the right information, an individual is better able to take good decisions with respect to his/her health and lifestyle. With the right information, health care policy-makers and managers can decide on how to allocate financial, physical and human resources in the most cost-effective and efficient way.

Getting the right information, however, is not an easy task. For example, the Committee was told that doctors would currently need to read 19 scientific articles a day, 365 day a year, just to keep abreast of progress in medicine.¹⁹⁵ Obviously, it is almost impossible to keep pace with such overwhelming information. Similarly, individuals and patients are faced with an abundance of health-related information, with an estimated 40,000 health websites accessible to the general public.¹⁹⁶ It can be very difficult for them to discern between the good and the bad information.

And yet, despite the volume of information available, there is still a lot that we do not know about health and health care. According to witnesses, this is mainly because Canada's health care system is not integrated: physicians and other health care providers, hospitals, laboratories and pharmacies all operate as independent entities, with limited linkages to allow for the sharing of information about patients. While each entity holds a vast amount of current, relevant and valuable information on the health of individuals, such information is not standardized, it is stored in inconsistent means and, thus, it cannot be shared efficiently. This lack of integration impedes the establishment of a direct relationship between the inputs we use in the health care system and the resulting outputs or outcomes. This creates a significant barrier in evidence-based decision-making by both health care managers and policy-makers.

I believe that we do a wonderful job of creating data in the system, a mediocre job of turning it into information, a lousy job of turning it into knowledge, and an even worse job of sharing that knowledge. It is not because people do not want to do it. It is because people are so hard pressed by what they are doing that it is hard to step back and do broad-system thinking.

William J. Pascal, Director General, OHIH, Health Canada (12:6)

The Committee was told that the availability of, the accessibility to, and the sharing of the "right information" on health and health care could be greatly enhanced through the use of information and communications technology (ICT). Many witnesses stressed that the health care sector is far behind other information-intensive sectors – such as the banking

¹⁹⁵ William J. Pascal, Office of Health and the Information Highway (Health Canada), *A Health Infrastructure for Canada*, Brief to the Committee, 10 May 2001, p. 1.

¹⁹⁶ Dr. Jill Sanders, CCOHTA (5:16).

industry, insurance companies and the airlines – in terms of investing in ICT for collecting, managing and analysing data. Dr. John S. Millar, Vice-President of Research and Analysis at the Canadian Institute for Health Information, described Canada's health care system as a "cottage industry":

*Hospitals, agencies and providers have long been used to working (...) as "cottage industry," looking after themselves and their own quality processes but not wanting to share that publicly. There has to be an increased stress on accountability and informing consumers who (...) are largely uninformed.*¹⁹⁷

In the same vein, David Cowperthwaite, Director of Information Systems at the New Brunswick Department of Health and Wellness, stated:

*By any measure, private sector or public, we are far behind an appropriate level of investment in infrastructure for health care. We are behind government norms for good management compared to other programs, and we are certainly behind private sector norms for any information intensive industry.*¹⁹⁸

8.1 Concepts and Definitions

The use of ICT in the field of health care is often referred to as "telehealth". The purpose of telehealth is twofold: to share health-related information among various health care providers and health care settings; and to deliver health services over large and small distances. Telehealth applications can improve quality of care and enhance health care system management.

What advanced information and communications technologies (ICTs) have to offer to the health sector is timely access to the most current information where it is needed, when it is needed for those who need it to take action.

*William J. Pascal, OHIH,
Brief, p. 3.*

Dr. Robert Filler, President of the Canadian Society of TeleHealth (CST), told the Committee that telehealth encompasses five broad applications: electronic health record; health information networks; telemedicine; tele-homecare; and distance continuing education and training. Each of these applications is described briefly in Table 8.1.

The telehealth applications that are envisioned in Canada for the purpose of sharing the right information and integrating health care delivery include a system of EHR and an Internet-based health information system:

- The foundation of an EHR is electronic patient records (EPR) which represent the results of a series of encounters between an individual and a

¹⁹⁷ Dr. John S. Millar, CIHI (12:13).

¹⁹⁸ David Cowperthwaite, Director, Information Systems, New Brunswick Department of Health and Wellness, *A Provincial Perspective on Health Related Information*, Brief to the Committee, 10 May 2001, p. 1.

health care provider. EHR systems are composed of all lifelong EPR records for that individual incorporating data from all sources: health care providers (e.g., physicians, hospitals, community and home care), as well as support and feeder systems (e.g., pharmacies and laboratories). An EHR system can make the data available to health care providers anywhere on a need-to-know basis by connecting interoperable databases that have adopted the required data and technical standards.

TABLE 8.1

TELEHEALTH APPLICATIONS	
Electronic Health Record (EHR)	The EHR is an automated provider-based system within an electronic network that provides complete patients' health records in terms of visits to physicians, hospital stays, prescribed drugs, lab tests, and so on.
Health Information Networks	These networks refer to Internet-based health information with the purpose of empowering individuals to make informed choices about their own health and well-being, their health care system and health care policy.
Telemedicine	Telemedicine makes use of video conferencing equipment to provide health care at a distance. The video conferencing, which uses a relatively high bandwidth, is live and interactive. A large bandwidth can simultaneously accommodate television, voice, data and many other services.
Tele-homecare	Tele-homecare uses ICT to deliver and manage health care at a patient's residence from a health care facility. This includes, for example, triage call centres and telemonitoring.
Distance Continuing Education and Training	Video conferencing equipment is also used for providing continuing education and training. This is of particular interest to health care providers located in remote communities.

Source: *Glossary of Terms*, OHIH's Website (http://www.hc-sc.gc.ca/ohih-bis/menu_e.html) and Library of Parliament.

- An Internet-based health information network is a system that empowers individuals to make informed choices about their own health and well-being, their health care and about health policy. Health information to the general public could include for example: 1) general health information (health promotion and disease prevention); 2) information on treatment options and drugs, as well as on illness management (e.g. blood pressure, diabetes or obesity); 3) information on public health issues (e.g. quality of air, water and food); 4) information on the effects of health determinants; 5) health and health care policies at the federal, provincial and territorial levels as well as

the policies in other countries; 6) data on health outcomes of public policies; 7) accountability data (such as report cards on the performance of the health services and providers).

Not only can telehealth applications improve the sharing of the right information, but they also offer the possibility to deliver care over large and small distances. For example, "telemedicine" is used in Canada in the areas of teleconsultations, teleradiology, telepsychiatry, telepathology, teledermatology and telecardiology. Similarly, tele-homecare allows individuals to obtain medical information 24 hours a day by calling a nurse call centre, which can advise them on whether their condition requires immediate medical attention.

Dr. Feller told the Committee that, while each of the main five telehealth applications stands as an individual component, they must act together to create the seamless technology system that will be able to deliver the right information at the right time and at the right place. He stressed that the EHR is the central piece that ties all the components together.

8.2 Provincial and Federal Initiatives With Respect to a Pan-Canadian Health Infostructure

Telehealth is the foundation of what many people in Canada call the health information infrastructure or "health infostructure"¹⁹⁹ Various components of a health infostructure are currently being implemented at all levels of government. For example:

- The provincial ministry of health in British Columbia operates HealthNet/BC, an electronic network that connects virtually all hospitals, health agencies and health authority offices across the province.
- In Newfoundland, the government is currently launching Phase 1 of an eight-phase, five-year implementation EHR system that will enable exchange of information between the health boards, health care providers and the provincial ministry of health.
- In Saskatchewan, the Saskatchewan Health Information Network (SHIN) is linking all health care providers and health care settings across the province.
- Nova Scotia has installed one of the most comprehensive and active telemedicine networks in Canada, reaching 42 health care facilities throughout the province. Approximately 53 videoconferencing systems provide for educational and medical consultations. There are 36 teleradiology sending stations and 11 reading stations.
- The health ministry in Quebec has implemented the Réseaux de telecommunications sociosanitaire (RTSS) which enables the secure exchange of clinical and administrative information between health care facilities.

¹⁹⁹ The concepts of "health infoway" or "health information highway" can also be used interchangeably.

- The Alberta We//net is currently developing a telephone triage service, available 24 hours a day, seven days a week, that will give people advice about how best to treat minor ailments or where to seek appropriate treatment.
- The federal government, through Health Canada, provides telemedicine services into 5 First Nations communities located in different provinces (British Columbia, Alberta, Saskatchewan, Manitoba and Quebec).
- The Canadian Institute for Health Information (CIHI) - which was established in 1994 as a national, independent, not-for-profit organization - is doing a great job at collecting and analysing the currently available information on the health of Canadians and on the state of the Canadian health care system.

These initiatives are all at different stages of development. Moreover, they are isolated within organizations, institutions and provinces and are considered as "a patchwork of unconnected projects, whose value would increase immensely if part of a coherent whole."²⁰⁰ The key element is how to bring all those infostructures together. It is a great challenge to integrate 14 jurisdictions (10 provinces, 3 territories and the federal government). It is obviously an ambitious, costly and long-term undertaking which will take years to bring into being. Most experts believe, however, that it is essential to do so if we wish to acquire sound information on the health of Canadians, the state of our health care system, and on the efficiency and effectiveness of health services delivery and distribution, and most importantly, if we want to improve the quality of health care Canadians receive, particularly if they live in rural or remote communities.²⁰¹

The federal government wants to champion the development of a Canadian Health Infostructure that it defines as "an integrated network of computer and communication networks that virtually connects physical infrastructure, health professionals, facilities, communities and patients to enhance health care delivery and the sharing of health-related knowledge for the better health of Canadians."²⁰² The envisioned Canadian Health Infostructure will not be a single massive structure, but a network of networks, building on the initiatives that are already in place or under development at the federal, provincial and territorial levels.

[Provincial and territorial] respective initiatives toward building health information systems constitute the base for a pan-Canadian health infostructure. Each of them face the same issues and must find solutions to similar problems. Their responsibility for the management and delivery of health services make them key actors on the scene of health information, but also confines them to looking at their own needs and delivery mechanisms. Understandably, the need for inter-jurisdictional linkages is not at the forefront of their concerns.

William J. Pascal, OHIH,
Brief, p. 6.

As Table 8.2 shows, many reports have recommended the development of a pan-Canadian health information infrastructure and have stressed the need for federal leadership and

²⁰⁰ Report of the National Conference on Health Info-Structure, February 1998, p. 19.

²⁰¹ Michel Léger, *The Canadian Health Infoway: A Vital Link to the Future*, May 2000.

²⁰² Office of Health and the Information Highway (Health Canada), *Virtual Integration for Better Health: from Concept to Reality*, September 1998, p. 1.

a cohesive national vision for the health infostructure. The federal government has been making financial contributions to the Canadian Health Infostructure since 1997. The Office of Health and the Information Highway (OHIH), established within Health Canada in the summer of 1997, is the focal point for all matters concerning the use of ICT in the field of health and health care.

**TABLE 8.2: CANADIAN HEALTH INFOSTRUCTURE:
CHRONOLOGY OF FEDERAL GOVERNMENT INITIATIVES**

April 1994	The federal government mandated the Information Highway Advisory Council to investigate the development and use of the information highway for the economic, cultural and social advantage of all Canadians.
October 1994	The Prime Minister of Canada launched the National Forum on Health to advise the federal government on innovative ways to improve the health care system.
September 1995	The Information Highway Advisory Council released its report entitled <i>Connection Community Content: The Challenge of the Information Highway</i> . One of its 300 recommendations called for the creation of an advisory council to identify new information technology applications specifically for the health care sector.
February 1997	In its final report entitled <i>Canada Health Action: Building on the Legacy</i> , the National Forum on Health recommended that the federal Minister of Health take a leadership role in the development of a nationwide health information system. Such a system would serve as the foundation of an "evidence-based" health care system.
February 1997	The 1997 Budget provided \$50 million over three years for a Canada Health Information System.
August 1997	The federal Minister of Health established the Advisory Council on Health Info-Structure to provide strategic advice on the development of a national strategy for a Canadian health info-structure.
August 1997	The federal government created the Office of Health and the Information Highway (OHIH) to assist in addressing new and evolving issues and develop a longer term strategy regarding the Canadian Health Info-structure. OHIH is now the federal government's focal point for all health info-structure-related activities.
September 1997	The Canadian Network for the Advancement of Research, Industry and Education (now CANARIE Inc. – Canada's Advanced Internet Development Organization) issued a paper entitled <i>Towards a Canadian Health Iway: Vision, Opportunities and Future Steps</i> . This paper envisioned the Canadian Health Iway as "a virtual "information centre" open and accessible, yet confidential, system to assist decision-making by health professionals, patients, researchers and policy-makers.

February 1998	Health Canada sponsored a two-day National Conference on Health Infostructure to discuss impediments to the application of information management and information technology within Canada's health care system. Participants stressed the need to develop a consensus regarding the vision of Canada's Health Infostructure and called on Health Canada to play a leadership role in engaging all stakeholders.
March 1998	Health Canada launched the Health Infostructure Support Program (HISP). HISP was a shared-cost contribution program supporting pilot projects using new information technologies and applications in areas such as public health, health surveillance, Pharmacare, First Nations health, homecare and telehealth.
February 1999	The Advisory Council on Health Info-Structure released its final report, <i>Canada Health Infoway: Paths to Better Health</i> . It affirmed that setting up a nationwide health information highway could significantly improve the quality, accessibility and efficiency of health services across the entire spectrum of care in Canada. The Council's four objectives include: developing a Canadian vision of a health information highway and identifying the essential needs it should meet; generating a federal action agenda to implement the most vital components of the system; suggesting collaborative mechanisms to achieve a Canadian consensus on an integrated health information system; and identifying issues, challenges and barriers to the effective use of information and communications technologies, and recommending possible solutions.
February 1999	The 1999 Budget provided \$328 million to further develop health information systems in Canada (Canadian Health Network, National Health Surveillance Network, Federal Accountability Initiative, and a \$95 million grant to CIHI) and \$190 million for the First Nations Health Information System.
June 1999	The F/P/T Deputy Ministers of Health established an Advisory Committee on Health Info-structure with working groups to examine key issues regarding the development and implementation of the Canadian Health Infostructure.
October 1999	The F/P/T Deputy Ministers' Advisory Committee on Health Infostructure released a strategic blueprint to identify the technology components required to achieve a cohesive national health infostructure. Entitled <i>National Health Technical Infostructure: Blueprint and Preliminary Tactical Plan</i> , the report stressed that the Canadian Health Infostructure must be guided by the following set of values: strengthening Medicare, protecting personal health information, including all stakeholders, being based on collective and personal responsibility.
November 1999	The federal government launched three different initiatives: Canadian Health Network; National Health Surveillance Infostructure; First Nations Health Information System.
February 2000	The 2000 Budget provided \$366 million over four years for health information and information technologies.

June 2000	Health Canada launched the Canada Health Infostructure Partnerships Program (CHIPP). CHIPP is a two-year, \$80 million, shared-cost incentive program aimed at supporting the implementation of innovative applications of ICT in health care (namely telehealth and electronic health records). The deadline for applications for funding was 31 August 2000.
October 2000	The federal government enacted Bill C-45, the <i>Canada Health Care, Early Childhood Development and Other Social Services Funding Act</i> . This Act provides \$500 million in 2001-02 for the purpose of developing and supporting the adoption of Canada-wide information standards and compatible communications technologies for health care.

Source: Information on Health Canada's website summarized by the Library of Parliament.

The provinces and territories also want to be involved in the development of the Canadian Health Infostructure. On September 11, 2000, the First Ministers agreed to work together to: 1) strengthen a Canada-wide health infostructure to improve quality, access and timeliness of health care for Canadians; 2) develop an electronic health record system and enhance technologies such as telehealth over the next few years; 3) work collaboratively to develop common data standards to ensure compatibility of health information networks; 4) ensure stringent protection of privacy, confidentiality and security of personal health information; and 5) report regularly to Canadians on health status, health outcomes, and the performance of publicly funded health services.²⁰³ In support of the agreement reached by First Ministers, the federal government committed \$500 million to accelerate the adoption of modern information technologies to provide better health care.²⁰⁴ The Committee was told that this money will be invested in a not-for-profit organization, known as Canada Health Infoway Inc., which will work with provinces and territories to create the necessary common components of an EHR over the next three to five years. This will be a major step towards the full integration of the health infostructures being developed.

Witnesses welcomed this collaboration between the federal government and the provinces and territories. For example, David Cowperthwaite told the Committee:

We are currently enjoying a wave of collaboration between the federal government and the provinces and territories, as well as among the provinces and territories. This cooperative attitude provides a significant opportunity to advance the development of the health infostructure in a more cost-effective manner than any of us could do individually.

This wave of cooperation has developed, in part, because of a genuine interest to do the best job we can with the resources available. But there is another significant issue driving collaboration and that is a sense of desperation. Our infostructure needs in provinces and territories are great, and the resources available to meet the needs are

²⁰³ First Ministers Meeting, *Communiqué on Health*, News Release, 11 September 2000.

²⁰⁴ First Ministers Meeting, *Funding Commitment of the Government of Canada*, News Release, 11 September 2000.

*woefully insufficient. The result is a willingness to collaborate, albeit a somewhat forced willingness. This situation does provide a window of opportunity for change, and we must take advantage of it.*²⁰⁵

The Committee agrees with the witnesses that the federal government has a definite role to play in the area of health-related information:

*Considerable agreement exists among provinces and territories and other stakeholders that the federal government should foster collaboration in this area. Indeed, without a federal effort to ensure compatibility among these health information initiatives, little exchange between jurisdictions would have happened, and expenditures by all orders of governments within their respective jurisdictions could be significantly less productive.*²⁰⁶

Federal investment should also help reduce the current disparities between provinces and territories in the field of health-related information. However, the Committee was told that current federal programs may be encouraging more disparity. For example, under CHIPP, federal funding requires matching funds from the applicant. The relative needs for service improvements, or health service deficiencies in one region over another, were not considered in the project selection. According to Cowperthwaite, those who had the money got more money, and those in great financial need did not have an opportunity to apply. He pointed out that, while the opportunity to change the design of CHIPP has passed, the federal government should ensure that the investment strategy of Canada Health Infoway Inc. should not be as it was in the CHIPP program. Rather, it should place greater emphasis on projects in locations that have the greatest need, the willingness to act, and the commitment to implement system change.

8.3 Costs and Benefits

The implementation and deployment of the pan-Canadian Health Infostructure is a costly undertaking involving a vast array of patients, health care providers and institutions. For example:

- Over 800 hospitals across the country provide 132,000 in-patient beds;
- Approximately 28,000 family doctors and 27,000 specialists provide care;
- Approximately 228,000 registered nurses are working in the health care system.

Given the complexity of our health care system and the variety of stakeholders, it is difficult to evaluate the total costs associated with the deployment of a pan-Canadian Health Infostructure. William J. Pascal suggested that between \$6 and \$10 billion would be needed to achieve full implementation:

²⁰⁵ David Cowperthwaite, Brief to the Committee, p. 1.

²⁰⁶ William J. Pascal, OHIH, Brief to the Committee, p. 7.

*(...) over a horizon of seven to eight years, based on some current expenditures related to implementation and operation of information systems in different settings, it is estimated that somewhere between six to ten billion dollars will be needed to achieve full implementation. Decisions on such things as the rate of replacement of current systems used in the health care sector or the type of connections needed – low or broad bandwidth – and our success at pooling resources, or at least sharing best practices and successful applications, at the pan-Canadian level will determine the true level of investment needed. But it is clear that this will not come at a small price for any of those involved, and we should not underestimate the task ahead.*²⁰⁷

Nonetheless, there is a wide consensus that the benefits of a pan-Canadian Health Infostructure will be numerous.²⁰⁸

- The health infostructure will enable effective medical care at patients' homes and in remote rural areas. This will also improve accessibility of specialized care. Patients will be able to perform specialized tests at homes and transmit data from electronic sensors via telecommunication networks. Post-surgical patients would wear wireless sensors, continuously transmitting physiological information to their physician's office. This information would be continuously analyzed by a computer, which would alert a physician to significant deviations. Using telehealth links with two-way audio and video capabilities, major medical centres will be connected with general practitioners and nurse practitioners in remote communities, assisting them in appropriate diagnosis and treatment of patients.
- The quality of medical care will be improved dramatically by bringing reliable information to physicians, through national data on treatment outcomes and extended information on the effectiveness of previous treatment received by a patient. The patient file will provide medical professionals not only with descriptive information, but also with most of the previous X-rays, MRIs and detailed biochemical analyses. This information will prove to be life saving in emergencies, when survival, often determined by minutes, depends on availability of essential data (e.g., blood type or known allergies).
- A pan-Canadian Health Infostructure based on the electronic transfer of health information between jurisdictions would result from a macroeconomic effect on the development of the information and communication industries, health care industries and educational institutions.
- Many people work on contract and visit their client companies in different provinces. Many people travel. Ability to transfer health information would enable local physicians and nurses to access the visiting patient's records on an as-needed basis.
- Information exchange is the core of public health and epidemiology. It is crucial for the well-being of the population that reliable public health

²⁰⁷ William J. Pascal, OHIH, Brief to the Committee, p. 8.

²⁰⁸ OHIH (Health Canada), *Virtual Integration for Better Health: from Concept to Reality*, September 1998.

surveillance information be communicated among different countries, provinces and territories. Diseases do not abide by jurisdictions, nor should the information about them.

- The ability to transfer health information between jurisdictions also holds vast potential for facilitating research by groups of biomedical scientists working in different parts of the country. The results of such research would benefit all people of Canada.
- The Canadian federal government is a major provider and purchaser of health care services through its health care responsibilities for military personnel, public service, veterans, immigrants and First Nations. Implementation of interoperable health records systems across the country could enable both the federal government and the local providers of health care to decrease expenditures through decreasing duplication of records and eliminating excessive paperwork.
- Unrestricted flow of health information between jurisdictions, enhanced by unique identification of patients and providers, would enable fraud detection, and therefore save considerable costs.
- The economic benefits of inter-jurisdictional transfer of health information could be realized mainly through the replacement of existing paper flow between the provinces and territories by electronic technology. In addition, should provinces decide to jointly participate in the design and implementation of the pan-Canadian Health Infostructure, economy of scope could be realized.
- In terms of technological benefits, federal/provincial/territorial collaboration in the development of the pan-Canadian Health Infostructure would facilitate diffusion of new technologies and result in comparable technological capacity for transmitting multimedia health information between jurisdictions. It would also contribute to the faster development of interoperability standards between federal/provincial/territorial information system platforms.
- A pan-Canadian Health Infostructure could contribute to the elimination of sharp differences in social and health care infrastructures of rural and urban areas of different provinces and territories. Inter-jurisdictional transfers of health information could drastically improve access to health information by patients and health professionals.
- A pan-Canadian Health Infostructure could facilitate the development of the virtual health care environment extending over provincial and territorial borders and enable true portability of health care. This environment would make possible the effective maintenance of virtual networks of health specialists across the country, thus resolving the issue of relative professional isolation in rural areas. This could have a positive effect on human resource issues in remote communities of different provinces and territories.

- Sharing health and economic outcomes information across the country could enable continuous cost-effectiveness analysis and analysis of quality of life indicators on a national scale, thus facilitating the sharing of best practices.
- Health care management issues posed by the increasing rate of change, demographic shifts, technological revolution, etc., are roughly the same across the country. The capacity to exchange hard data on organizational levels between similar facilities in different jurisdictions and discuss management issues and solutions would enhance the quality of health care management.
- The information generated by the health infostructure would provide the basis for preparing regular reports on health outcomes, health care providers and on the performance of health services delivery. This is very important as a tool to improve the health care system.
- The development of the pan-Canadian health infostructure could consolidate and virtually integrate provincial and territorial health care systems into a new, more efficient and streamlined national health care system, without actually interfering with the management and delivery of services by provincial/territorial health care systems.

Overall, a pan-Canadian Health Infostructure that virtually connects physical infrastructure, health professionals, facilities, communities and patients will enhance health care delivery and the sharing of health-related knowledge for the better health of Canadians. This will lead to a truly patient-oriented health care system:

*(...) the return on investment will be tremendous for all stakeholders. But the real winners will be Canadians, because they will gain better and easier access to continued quality health services, because they will profit from the knowledge that they will be able to acquire themselves, because they will gain improved understanding of how their health care system fares and meets their needs.*²⁰⁹

8.4 Issues

According to witnesses, the implementation and full deployment of the pan-Canadian Health Infostructure faces three major barriers: the protection of personal information, legal and ethical issues, and the interoperability of the various systems.

The issue of privacy, confidentiality and security related to personal health information in the electronic world is certainly the most crucial one. The *privacy* issue refers to the extent of authorized access to personal health information. The subject of *confidentiality* is the extent of permissible distribution of available personal health information. *Security* refers to the set of standards in and around information systems that protect access to the system and the information it contains.

²⁰⁹ William J. Pascal, OHIH, Brief to the Committee, pp. 8-9.

Protection of privacy in Canada is a shared responsibility between the federal and provincial/territorial governments. Current legal protection of privacy represents a patchwork of various laws, policies, regulations and voluntary codes of practice. The Committee was told that the first step is certainly to attempt to gain support for the harmonization of legislation and regulation across Canada that will protect the privacy of Canadians in matters of health. Witnesses stressed that Canadians need to be assured that governments are taking all the necessary steps to implement stringent rules in these matters. Already, a resolution for the harmonization of legislation is being examined by all jurisdictions and agreement is expected in the coming weeks. At the technological level, it has been demonstrated that confidentiality and security of personal health data can be achieved currently at a level that is not achievable in a paper world. The problems that we face right now concern mostly the architecture of the systems that would be put in place, and their governance from a pan-Canadian perspective.

How can we as Governments expect the other stakeholders who hold the information to participate with us in building the EHR if we cannot demonstrate the ability to manage our own information well? How can we expect an individual to grant us permission to share information through an EHR if we cannot show that we are competent and efficient managers of the data we currently hold? Governments must lead by example in the effective management of information to demonstrate the value of an EHR and to draw the rest of the stakeholders into the EHR process.

*David Couperthwaite,
New Brunswick Department of Health and
Wellness, Brief, p.3.*

The Committee was concerned by the evident lack of progress among stakeholders with respect to Bill C-6, *Personal Information Protection and Electronic Documents Act*. In November and December 1999, the Committee held hearings on this bill. The hearings focused largely on concerns regarding the application of Part 1 of the bill to the collection, use and disclosure of personal information. The Committee was of the view that, while Part 1 may be adequate in setting minimum legal standards for protecting the personal information of Canadians in the commercial arena, the adequacy of these standards for the health care sector was open to question. It amended the bill so that its application to personal health information be delayed for one year following the coming into force of the legislation. The purpose of this amendment was to provide health care stakeholders with an opportunity to formulate legislative measures appropriate to the special nature of personal health information. The amendment was accepted by the House of Commons, and the bill received Royal Assent on 13 April 2000.

When the Committee met on the issue of health-related information in May 2001, witnesses indicated that no consensus had been reached yet among them on the changes that are required to Bill C-6 to ensure the flow of data between health care stakeholders involved in the health infrastructure. The application of Bill C-6 to organizations involved in health information systems as well as in health research must be clarified in order that they may continue to provide critical information to improve the health of all Canadians. It is the hope of the Committee that solutions will be found to this problem before the end of the one-year moratorium in December 2001.

Legal and ethical concerns relate mostly to the licensure, reimbursement and liability of health care providers in delivering services from a distance. Clearly, there will need to be some form of incentive to foster the use of these new technologies in health care settings. These technologies will bring changes in work processes that will need to be carefully monitored

to ensure success, and supported by the necessary skills and knowledge training programs, whether in academic or work settings.

Another major obstacle, and not the least, is the issue of standardization which is at the heart of interoperability of the various health information systems. When people refer to *standards* in the health infostructure domain, they refer as much to the technology, hardware and software, as to nomenclatures or to patient or provider identification. Currently, none of those are fully compatible and readily interoperable across Canada. The Committee was told that even within the same institution, information systems often cannot connect with each other to exchange data. This situation can be multiplied over and over again across the country. A lot of work remains to be done to ensure full compatibility at all levels from coast to coast. A proposal is currently being developed for the Advisory Committee on Health Infostructure to improve the way in which standards related to health information are dealt with in Canada in order to harmonize standards used in the different jurisdictions, the federal government included.

Finally, the Committee was told that a balance is needed between development and deployment. Witnesses indicated that many of the components needed for a pan-Canadian Health Infostructure exist today and we should start its deployment now:

Development without deployment creates expensive "white elephants" that do not deliver improvements to the health of Canadians. We will be far better served by limited systems that are fully implemented and used for everyday service delivery than to develop a technology showcase system that never makes it out to the real world.²¹⁰

8.5 Committee Commentary

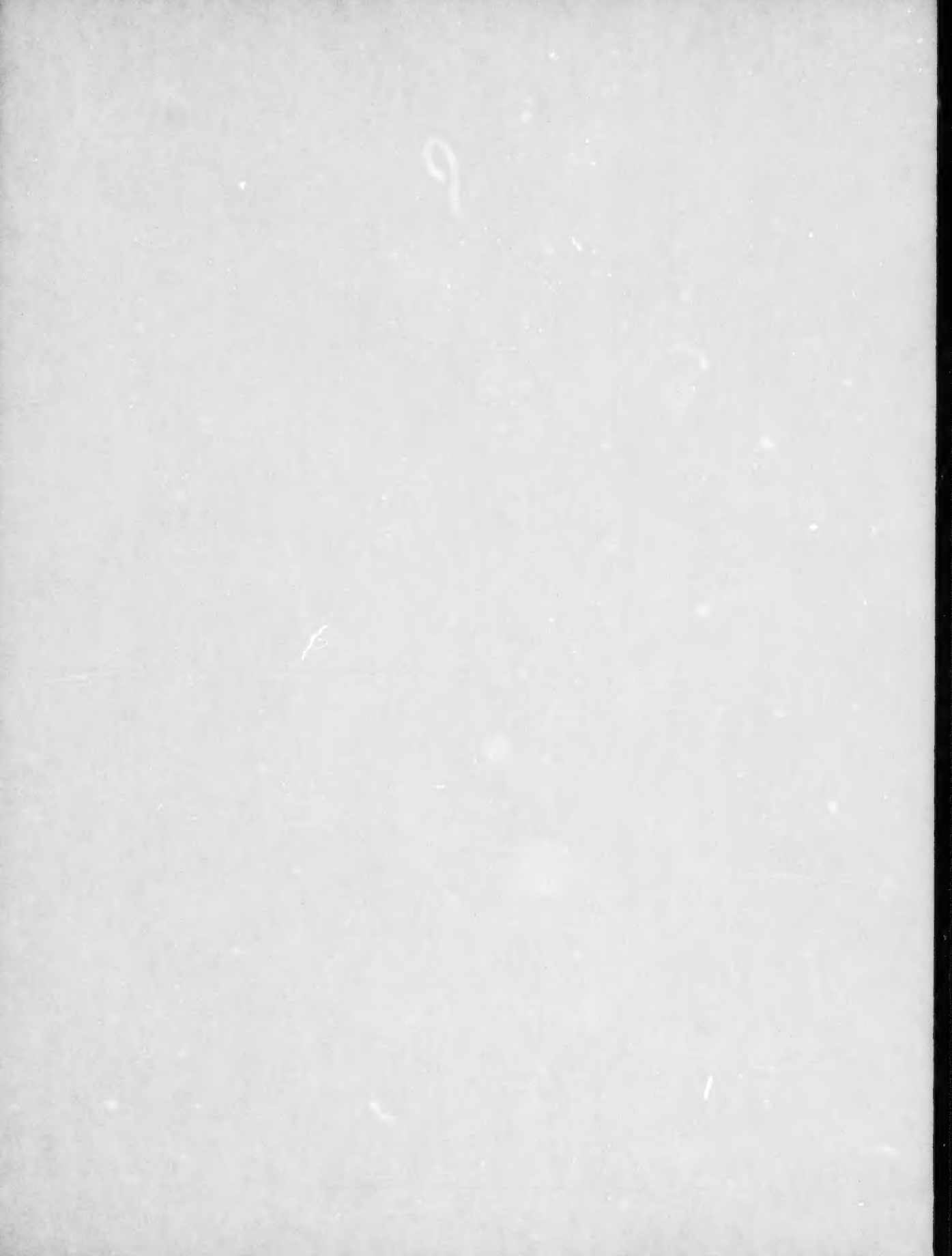
Overall, the use of telehealth applications in implementing the Canadian Health Infostructure can support and enable the development of a true patient-oriented health care system by providing the base for vertical and horizontal integration of services. The health infostructure can help create the information pools that will facilitate evidence-based decision-making throughout the system by all the users, be they patients, health care providers, managers, researchers, or policy-makers.

The Committee agrees that to remain sustainable in the long term, the health care system must move from its current model of an array of disjointed entities to a fully integrated continuum of services that can be accessed by people at any of the points of service, whether at home, at a private clinic, at the hospital, etc., wherever they live in Canada. Therefore, good health-related information and the need to ensure its accessibility for all those concerned with health and health care is key to the successful renewal of Canada's health care system. Many benefits will come simply by standardizing, connecting and sharing what we have.

The Committee also believes that the federal government has a critical role to play in fostering collaboration, developing common standards, and encouraging the harmonization of legislation. More importantly, the federal government must maintain its

²¹⁰ David Cowperthwaite, Brief to the Committee, p. 4.

leadership role and provide a level of funding that can sustain the deployment of the Canadian Health Infostructure.



CHAPTER NINE:

HOME CARE

9.1 What is Home Care?

Home care is generally defined in terms of services provided to individuals in their homes. Home care does not include care provided privately or publicly in a residential facility for long-term or continuing care purposes.

Home care services can extend along a continuum that incorporates medical interventions as well as societal supports. It can also include assistance needed for family and volunteer caregivers. Home care can thus encompass an array of health, social or educational services that enable an individual requiring support to live and participate in society outside an acute or long-term care setting.

Home care is the program that plans in-home supports. It monitors and evaluates clients' needs, provides nursing services, helps with activities of daily living and provides homemaking or offers assistance to enable independent living. Home care programs work with other services, including community support services such as meals on wheels, day centres, respite care and volunteer services. Home care also works with acute care hospitals, palliative care and respite facilities, long-term care services, mental health services and independent living programs - all to assist the client in the home and community.

Nadine Henningsen, Executive Director, Canadian Home Care Association (14:7)

However, there is no single, universal agreement about what services should be included in the definition. Home care services can cover acute care such as intravenous therapy and dialysis, long-term care provided for individuals with progressive diseases such as Alzheimer's or chronic physical or mental disabilities, end-of-life care for people with terminal conditions, or personal support services such as attendant services and technical aids. Formal home care can include both health care and social support services such as monitoring, assessment, coordination, nursing, homemaking, nutritional counselling and meal preparation, occupational and physical therapies, pain control, emotional support and self-care instruction.

Home care can be provided by formal providers who are predominately nurses, therapists, homemakers, and personal support workers. These formal providers can be part of a community organization or a quick response team. They can provide care in person or via communication technology. While these formal services have evolved steadily over the past three decades, informal home care provided by friends and family has a long history. These informal providers - often mothers, wives and sisters - also need to be considered as recipients of home care programming to prevent the often costly crisis created by caregiver burnout. In particular, there is an identified need for respite care offering two types of services: caregiver replacement and direct services to caregivers.

Witnesses saw home care as part of the continuum of care related to health and well-being. They stressed the need to include it in considerations relating across the health and

social spectrum of primary care, acute care, long-term residential care, end-of-life care, community support programs, and personal support. They emphasized that effective home care contributes to lower long-term costs for the health care system through its three primary functions of:

- substitution for services provided by institutions, either acute care hospitals, long-term care institutions or palliative care facilities;
- maintenance enabling individuals to remain in their current environment; and
- prevention through ongoing monitoring and assessment.

Focusing particularly on the health care system, the Canadian Home Care Association stressed that home care is not facility based and requires no major capital investment or overhead. It does not depend on physicians for access. It can go beyond physical health care to engage social supports for comprehensive client care.²¹¹

TABLE 9.1

BENEFITS OF HOME CARE
☐☐ Enables the health care system as a whole to operate more cost-efficiently;
☐☐ Reduces the pressure on acute care beds and emergency rooms by providing medical interventions in alternate settings and using hospital resources only when they are needed;
☐☐ Reduces the demand for long-term beds by providing a viable choice for aging Canadians to maintain their independence and dignity in their own homes and community;
☐☐ Helps support family caregivers and sustain their commitment.

Source: Nadine Henningsen (14:8).

9.2 Current Demand for Home Care

The 1998/99 National Population Health Survey provided some data relevant to the use of publicly funded home care.²¹² It found that publicly funded home care use increased with: age; disability; and diminished income. Thus:

- While less than 1 percent of adults under 65 years of age received care, 37 percent of those over age 85 years did so.
- People needing help with activities of daily living were six times more likely to receive care than those who did not need this help.

²¹¹ Nadine Henningsen (14:8).

²¹² Canadian Institute for Health Information, *Health Care in Canada: A First Annual Report*, Ottawa: 2000, p. 58.

- People in the lowest two income brackets were much more likely to receive care than those in the highest income bracket.

Witnesses also identified various forces that reinforce the demand for further growth. In their view, four key variables must be considered:

9.2.1 Hospital Bed Reductions

The current trend is towards shorter hospital stays, early discharge and the use of outpatient procedures; all of which places more reliance upon community services. While home care is critical to sustaining a hospital system with fewer beds, it needs dedicated resources. With the substantially reduced capacity within the acute care hospital sector in the 1990s, shorter periods of hospitalization became the norm and people were sent home to the community without the subsequent investment in the home care side of the provision of health care services.²¹³ Concerns about "bed blocking" in acute care hospitals focused on situations where an acute episode of treatment was completed but inadequate home support services prevented discharge, leaving a person in an acute care bed at a phenomenal cost to the system.²¹⁴ When the hospital sector downsized, there was no funding put in place for the transition to the community and no investment in the community.²¹⁵

9.2.2 Rapid Population Growth over 65 Years of Age

Available data indicates that while many seniors live at home, their home care use increases with age and disability. Projections suggest that, where the percentage of the population aged 65 years and over reached 12.5 percent in 2000, by 2025, this population will have increased to over 21 percent of the general population. Statistics Canada noted that in 1996, approximately 95 per cent of seniors aged 65 and over lived at home.²¹⁶ According to the 1998/99 National Population Health Survey, about 400,000, or 12 percent of seniors received care through provincial home care programs.²¹⁷ The highest use of home care occurred in the senior population aged 85 years and up at 37 percent, compared to 20 percent for the age group 80 to 84 years.²¹⁸ The likelihood of a person having a disability increases with age and in 1991, 35 percent of people with disabilities were over age 65.²¹⁹

9.2.3 Pressures on Informal Caregivers

The majority of informal caregivers are women who support their family members and who must often manage simultaneously responsibility for aging parents, for their own children and full-time paid work.²²⁰ More than three million Canadians - mostly women -

²¹³ Kathleen Connors (13:70).

²¹⁴ Dr. Taylor Alexander (14:24).

²¹⁵ Dr. Thomas Ward (13:24).

²¹⁶ Jean-Marie Berthelot (2:10).

²¹⁷ Dr. Taylor Alexander (14:10).

²¹⁸ Canadian Institute for Health Information, *Health Care in Canada: A First Annual Report*, Ottawa: 2000, p. 58.

²¹⁹ Federal, Provincial and Territorial Ministers Responsible for Social Services, *In Unison: Persons with Disabilities in Canada*, Ottawa: 2000, p. 5.

²²⁰ Nadine Henningsen (14:8).

provide unpaid care to ill family members in the home.²²¹ A survey in Alberta indicated that, up to age 75, women were more likely than men to have provided health care support to a family member.²²² More than 60 percent of family and friend caregivers for seniors were women.²²³ More women are being conscripted into unpaid health care work and do so without training and with few supports.²²⁴ The combination of pressures can lead to not only stress-related illness and loss of work time for the caregiver, but can also increase the risk of neglect and mistreatment of the care recipient.

9.2.4 Advances in Technology

Medical advances have increased life expectancy, decreased the length of hospital stays and resulted in more outpatient services. Conditions that previously required hospitalization - e.g. pain control - can now be managed at home. Advances in treatment protocols and accessibility to high-tech equipment make palliative care in the home a real option for Canadians.²²⁵ Telehealth offers increased possibilities for diagnosis, monitoring, assessment, and maintenance. With tele-homecare, care can be provided using video conferencing in people's homes whereby data is received from the home and people are kept away from hospitals.²²⁶

9.3 Public and Private Spending

Witnesses suggested that public home care spending in Canada has grown from 1.2 percent of public health care expenditures in 1980-81 to approximately 4 percent in 1997-98. This 4 percent of all public expenditures on health care devoted to home care amounted to about \$2.1 billion per year.

Health Canada's data on public home care expenditures show that such expenditures more than doubled from 1990-91 to 1997-98, with an average annual rate of increase of almost 11.0 percent (see Graph 9.1). At the same time, public home care spending accounted for a small but increasing percentage of total public health care spending in Canada: 4.0 percent in 1997-1998, up from 2.3 percent at the beginning of the decade (1990-91).

Existing analysis of private home care costs is more limited. For example, assessments of how much Canadians pay out-of-pocket for services and costs associated with care, drugs, equipment and supplies appear occasionally in newspapers.²²⁷ Thus, *The Toronto Star* (27 November 1999) reported on a cross-Canada survey that showed home care clients spending an average of \$283 a week for in-home nursing care and other home support services such as personal care, bathing and meal preparation. This cost was estimated to cover about 25% of nursing services and 60% of home support services. Shortly afterward, the *Globe and Mail*

²²¹ Dr. Taylor Alexander (14:10).

²²² CIHI, *Health Care in Canada 2001*, Ottawa: 2001, p. 54.

²²³ CIHI, *Health Care in Canada, A First Annual Report*, Ottawa: 2000, p. 60.

²²⁴ Dr. Patricia Armstrong (11:22).

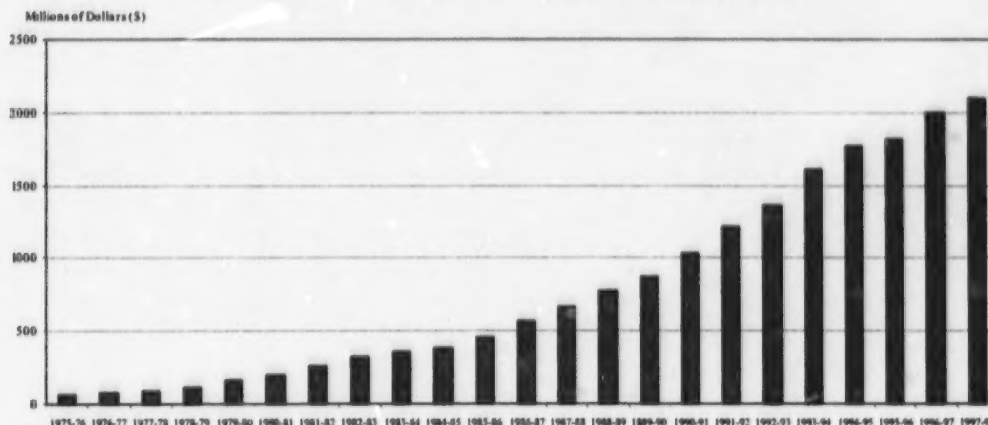
²²⁵ Nadine Hennigsen (14:8).

²²⁶ Dr. Robert Filler (12:15).

²²⁷ Nancy Miller Chenier, *Home Care: A Federal Perspective*, Ottawa: Parliamentary Research Branch, Library of Parliament, TIP 77-E December 19, 2000.

(6 December 1999) also found that home care clients incurred significant costs for post-acute nursing services at about \$202 a week. General home care was estimated at \$407 a month with another \$138 for prescription drugs.

GRAPH 9.1:
PUBLIC HOME CARE EXPENDITURES IN CANADA, 1975-76 TO 1997-98



Source: Health Canada, *Public Home Care Expenditures in Canada, 1975-76 to 1997-98*.

Witnesses emphasized that, while home care provision has increased in most provinces, spending on home care is still a small portion of the overall provincial health care budgets. In addition, there are wide variations among the provinces and territories regarding the proportion of public spending on home care. This leads to disparities in the provision and scope of services across the country with differences from province to province and from region to region. Also, some noted that financial expenditure data may omit paraprofessionals who provide most of the care in the home.

Witnesses were especially concerned that many individuals who need home care services may do without them because they cannot afford the costs. Dr. Taylor Alexander, President and CEO of the Canadian Association for Community Care, cited a Health Canada study indicating that "20 per cent of family caregivers reported that their loved ones did without services because they could not afford them."²²⁸ Currently, most provinces have a system where individuals pay according to ability; however, the rules for what is established as a baseline for payment is different in every province. Some noted that whereas some provincial governments support almost the full cost of home care, in other jurisdictions, people may be drained of their assets in order to receive the same care.

Evidence presented to the Committee provided specific data relevant to cost-effectiveness evaluations. Preliminary results from a cost-effectiveness study of home care at the Centre of Aging at the University of Victoria indicated an average of \$12,504 per year to provide lowest-level care for a client in a facility compared to \$5,413 at home. For clients with the highest-level needs, requiring nursing coverage 24 hours a day, the average cost was \$41,023 in

²²⁸ Dr. Taylor Alexander (14: 11).

an institution and \$33,579 at home.²²⁹ The Manitoba Centre for Health Policy and Evaluation at the University of Manitoba provided an example suggesting that the average case cost of providing care in hospital would be \$2,652 compared with the cost of \$1,882 for providing home care as well as drug therapy.²³⁰ A study on home care in Saskatchewan indicated that, while outcomes are the same, it cost \$830 more overall to provide a patient with non-acute care in hospital than to discharge them home with alternate follow-up care.²³¹

9.4 Future Actions

Witnesses strongly supported changes to the way that home care is currently organized, delivered and financed. They were consistent in calling for actions related to national standards and human resources. They did not, however, have a single perspective on the methods of financing home care, whether through public funds or private non-profit or for-profit organizations. Most witnesses focussed attention on informal caregiver needs, while others touched on information, research, prescription drugs, and technology issues. Several key areas for future action emerged during the Committee study.

TABLE 9.2
CHRONOLOGY OF RECENT FEDERAL INVOLVEMENT
IN HOME CARE

Date and Activity	Outcomes
February 1997: National Forum on Health	The National Forum report noted the shift toward non-institutionalized care with a resulting increase in home care and other community-based services. It called for increased data collection and assessment and for greater integration of home care with other health services.
February 1997: Federal Budget	The federal government announced the Health Transition Fund (HTF) in its 1997 Federal Budget. This three-year \$150 million fund supported innovations leading to a more integrated health care system. Home care was one of the priority areas included in national, provincial and territorial evaluation and pilot projects.
March 1998: National Conference on Home Care	Conference participants emphasized the need for: common principles framing a national approach to home care; clear standards; and agreement on program scope and content of coverage.

²²⁹ Centre of Aging, University of Victoria, "The National Evaluation of the Cost Effectiveness of Home Care", *Newsletter*, 1(1), March 2000.

²³⁰ Manitoba Centre for Health Policy and Evaluation, "A New Tool for Costing Health Care in Canada," Cost List example comparing the cost of providing care in hospital with the cost of providing home care plus drug therapy, April 1999.

²³¹ Health Services Utilization and Research Commission, *Hospital and Home Care Study*, Summary Report No. 10, March 1998.

February 1999: National Roundtable on Home and Community Care	Consensus positions highlighted the development of common standards, information systems, integrated human resources, strong research, knowledge and dissemination, and technological innovations.
February 1999: Federal Budget	The federal government allocated \$1.4 billion over three years for health initiatives with relevance for home care. These included: \$50 million over three years to develop innovative approaches to home and community care and access to quality health services, particularly in rural communities; an enhanced First Nations and Inuit home care and community care program and a First Nations health information system; increased funding for health research; and improving information technology for health care delivery, system accountability and citizen access.
June 1999: Working Group on Continuing Care of the F/P/T Advisory Committee on Health Services	The Working Group document, <i>Provincial and Territorial Home Care Programs: A Synthesis for Canada</i> provided analysis of home care programs by descriptive factors including: organization and governance, legislation, services and providers, eligibility, assessment and case management, coverage and co-payment charges, funding and utilization data.
March 2000: National Advisory Council on Aging	NACA advised the Minister of Health that the federal government should act as a role model and leader in home care development. In its Position Paper on Home Care, NACA presented 15 recommendations to advance the development of home care.
September 2000: First Ministers' Meeting	First Ministers, in their <i>Communiqué on Health</i> , directed Health Ministers to report on home and community services as part of the larger commitment to measuring, tracking and reporting on the performance of health services and programs.
2000: F/P/T Ministers Responsible for Social Services	The report titled <i>In Unison 2000: Persons with Disabilities in Canada</i> highlights the need for accessible, portable and individualized disability supports (human, technical, and other) in the home and community to facilitate the inclusion of the disabled.

Source: Parliamentary Research Branch, Library of Parliament.

9.4.1 National Standards

Discussion over national standards for home care referred to organization, service delivery and training. The emphasis was on quality of care and equity in access. Nadine Henningsen saw national standards as a way of ensuring "both an effective Canadian health care system and equitable treatment of Canadians in all parts of our country."²³² Dr. Taylor Alexander believed that "Canadians living in the so-called "have-not" provinces should not be

²³² Nadine Henningsen (14:8).

further disadvantaged and put at risk if their province lacks the funds to provide home and community services that are comparable to more affluent jurisdictions."²³³ Diane McLeod, Vice-President, Policy, Planning and Government Relations, at the Victoria Order of Nurses for Canada (VON) asserted that "without these standards, there is really no hope of having a unified health care program in the community sector."²³⁴

While witnesses were clear that services and training should be comparable across the country, they did not specify one way to achieve this goal. With regard to national standards, Dr. Taylor Alexander believed that standards developed around the provision of core services should weave together the principles from the *Canada Health Act*.²³⁵ He called for a federal/provincial/territorial

agreement on a "core basket" of essential home and community care services to which the principles of the *Canada Health Act* would apply. These insured services would include paraprofessional home support, nursing, social work, physiotherapy, occupational therapy, palliative care, prescription drugs, respite and case management. Nadine Henningsen stressed that while "the method by which these standards are incorporated into national legislation may be debated, the time for debate about the importance of the standards has passed."²³⁶

There are many kinds of national standards. There are, for example, the standards that have been developed by the Canadian Council on Health Services on accreditation for home care and long-term care. Long-term care facilities and home care programs across the country are being accredited. Those standards relate primarily to program administration and organization of the program, et cetera. There are standards with regard to training. Those standards are not in place across the country. There are no national training standards for home care workers. They will occur within individual provinces; each province is different. Some provinces financially support them; some do not. Sometimes home care certificate workers must pay for their own training out of their wages.

Dr. Taylor Alexander, President and CEO, Canadian Association for Community Care (14:17)

9.4.2 Human Resources

Witnesses saw a growing national crisis in the supply, distribution, recruitment and retention of staff in home and community care programs. They argued that years of health care cuts, nursing layoffs, low wages, difficult working conditions, poor training and greater complexity of care have made the sector an increasingly unattractive work environment. Their human resources concerns generally focused on training, compensation, work conditions, and retention for those involved in home care. The issue of substitution or crossover among professionals and between professionals and paraprofessionals was also raised.

With regard to training, there was an emphasis on education and training as part of the standard curricula for all individuals connected to home care. Without adequate numbers of trained staff, home care programs were unable to fulfil their mandates, thereby threatening the independence of clients and adding pressures on the acute care system. Some witnesses noted that more time and investment would be needed in helping to teach physicians about the

²³³ Dr. Taylor Alexander (14:12).

²³⁴ Diane McLeod (14:16).

²³⁵ Dr. Taylor Alexander (14:12).

²³⁶ Nadine Henningsen (14:8).

concept of home care and how to discuss it with their patients. Others pointed out that training requirements depend on the policy of each province.

For example, Ontario was noted for its stringent training program - a three-year program for a home support worker. In Nova Scotia, a training curriculum is currently being designed but is not instituted yet. In Saskatchewan, there is no training program for home support workers; it is managed by the service agency. Another witness explored provincial differences related to the proportion of registered nurses to auxiliary nurses. Régis Paradis, President, Ordre des infirmières et infirmiers auxiliaires du Québec, pointed out that, in Quebec, auxiliary nurses are almost absent from health care. However, in Ontario and the United States, where the proportion of registered nurses to auxiliary nurses is three to one, auxiliary nurses are heavily involved in home support services.²³⁷

According to this witness, if Quebec had the same proportion as Ontario, it would now have almost 4,500 more auxiliary nurses, which would lead to savings of approximately \$50 million annually.

Deficiencies in wages and benefits for home care workers is another key issue. In particular, the fact that they are paid lower wages than institutional providers was cited as one reason for shortages. Dr. Taylor Alexander noted that, in Ontario, there are some circumstances where community nurses are being paid as much as 25 per cent less than their counterparts who work in institutions.

The home care sector is characterized by lower wages and benefits than provided by hospitals, especially for paraprofessionals who, in some provinces, earn roughly minimum wages. It was also noted that virtually all of the paraprofessionals are female and that many are recent immigrants with low education who speak English as a second language. Many home care workers are subject to various forms of abuse in client's homes. Also, many provide service after hours without pay to assure that the clients receive the support that they need.

The wide disparities in wages and benefits across the country draw workers to areas of higher pay, thereby creating even worse shortages in areas with low wages, such as some Atlantic provinces. Reference was made to work by Human Resources Development Canada and Health Canada on home care human resources. Working with relevant organizations, this study will involve research and analysis of the issue of wage disparity for nurses and home

Improved training and retention strategies are needed to counter the shortage of nurses, home support workers and therapists in some regions across Canada. While these personnel shortages are part of a larger picture of scarcity of health workers, they are often exacerbated in home care by lower wages and benefits than those paid to workers in hospital and care facilities. Both the wages and supply of community workers are a serious challenge. We must provide compensation that is competitive with care facilities and hospitals. Ongoing professional training must become a priority to ensure that the highest standards of care are maintained. We must continue to investigate the most effective working relationships with the health care team, including the primary care physician and other components of the health care system.

*Nadine Henningsen, Executive Director,
Canadian Home Care Association (14:8)*

²³⁷ Régis Paradis (13:52).

support workers, workplace conditions for all staff who work in the community, as well as training needs for the community.²³⁸

Overall, witnesses called for close cooperation between the federal government and the provinces and territories in developing a national home and community care human resources strategy that will help ensure an adequate supply and distribution of appropriately trained home and community care workers across Canada. They saw the strategy including provisions to enable: the provinces to support the training and skill development, particularly of paraprofessionals; and agencies to offer adequate wages and benefits that will allow them to recruit and retain staff and prevent their loss to the institutional care sector or to other sectors.

9.4.3 Organization and Financing

Emerging evidence indicates that home care is more cost effective than care in acute care hospitals and that it presents a cost-effective alternative to premature use of long-term care facilities.²³⁹ In relation to long-term residential care, preliminary work found that savings of 50 percent could be obtained if home care replaced residential care for elderly clients who were stable in their type and level of care. The more unstable the client's health, and the more he or she moved through increasing levels of care, the more home care costs approached, and ultimately exceeded, the costs of residential care. Researchers also suggest that savings result from the way service delivery systems are structured in some parts of Canada and argue that policy-makers could consider mandating a "best practices" approach to organizing the home care delivery system.

We cannot simply pour new health care resources into the same old silos in the same proportions. Health care renewal should aim for a sustainable health care system for all Canadians, no matter where their care is provided. Often home supports can be provided at fewer costs than new hospital beds. It is imperative that we build the basic infrastructure of home and community care so that services are accessible, properly managed and available. We must invest to increase the quality and quantity of home care services. We must also ensure that there is a capacity to support people of all ages with many different needs.

*Nadine Henningsen, Executive Director
Canadian Home Care Association (14:9)*

Palliative care or end-of-life care was mentioned as one area where home care could substitute for hospital beds. End-of-life care is different from acute care and from long-term care but can involve both high and low intensity of care. Witnesses noted the lack of studies on the costs of palliative care and were unsure about the merits of initiating a

About 225,000 persons die in Canada each year. In 1997, an Angus Reid poll found that about 80 per cent of Canadians prefer to die at home. However, this is often not possible because of the lack of home-based palliative care services. Such services vary across the country; rural and remote areas are particularly under serviced. Overall, only about 10 per cent of Canadians have access to palliative care services.

*Dr Taylor Alexander, President and CEO
Canadian Association for Community Care (14:14)*

²³⁸ See Canadian Home Care Human Resources Study website at www.homecarestudy.ca

²³⁹ Hollander Analytic Services et al., *The National Evaluation of the Cost Effectiveness of Home Care*, ongoing studies, website: <http://www.homecarestudy.com>

national home care program targeted only at people requiring end-of-life care. They noted that provinces have often expressed concerns about targeted programs that intrude into their sphere and that most of the available data suggests that acute care substitution is the quickest and easiest way to see the value of home care, because you could compare it to the cost of keeping the patient in a hospital bed.²⁴⁰

Bonnie Pape from the Canadian Mental Health Association touched on home care in relation to mental illness and indicated that, in general, it is not working for mentally ill people. She pointed out that: "People with mental illness often are not eligible for home care unless they have another primary diagnosis. When they do get home care, the services are often not appropriate to mental illness, which has very specific needs. That is tragic because we know from small pilot studies that home care can make a big difference in the lives of people with mental illness, particularly those with complex needs. Home care can even prevent the need for institutionalization."²⁴¹

One of the unsettled issues around both organization and financing concerned the appropriate place for the public sector and the private sector. Currently, home care in Canada is provided through a mixture of public and private involvement. Aside from the limited role of the federal government in home care for specific groups such as First Nations and veterans, the budgets and public spending for home care are controlled primarily by provincial and territorial governments.

However, when it comes to delivery of services, both the public and private sectors have a role. In the private sphere, service delivery can be through not-for-profit agencies such as the Victorian Order of Nurses and for-profit companies such as ComCare. For most witnesses, the key concern was to eliminate financial barriers for people seeking care at a vulnerable time in their lives. Several witnesses noted studies showing that when people are aware that they have to pay for care, they tend not to access that care.

Some witnesses noted that the private factor in home care is not divergent from the rest of the organization of health care. Dr. Taylor Alexander pointed out that "physicians in our country are virtually private practitioners paid by public funding. Hospitals are private institutions paid by public funding."²⁴² By extension, home care could be dealt with in the same manner as physicians and hospitals, as private services paid by public funding but with the four patient-oriented principles of the *Canada Health Act* applying.

For Nadine Henningsen, one of the key variables in the profit versus the not-for-profit debate around home care was that the case management function should be a government, publicly administered role. According to her, home and community care is unique in its case management function and almost all jurisdictions now have single entry, standardized assessment and placement to home care services with ongoing case management. She noted that, unlike hospitals, in the area of home care, the case managers are the drivers or the

²⁴⁰ Dr. Alexander Taylor (14:32) and Nadine Henningsen (14:33).

²⁴¹ Bonnie Pape (19:41).

²⁴² Dr. Taylor Alexander (14:20).

controllers while the service providers, whether equipment or personnel, follow a pre-established and controlled case management plan.²⁴³

Other witnesses had concerns about private for-profit provision of home care. Kathleen Connors, President of the Canadian Federation of Nurses Unions observed that, in Manitoba, the government's experiment with private-for-profit home care was a failure. They could not obtain bids that were more cost effective in the delivery of quality home care services and so they reverted to the publicly funded and publicly delivered system.²⁴⁴

Witnesses generally felt that the federal government had a role, both in terms of research support to establish best practices and also with respect to an appropriate level of federal financial support. In relation to best practices, they pointed to a model in Manitoba where the home care programs are permitted to spend for home care services up to the amount that it would cost to have someone in a long-term care institution. On federal funding, they called for immediate allocation of funds targeted to home care by the provinces and territories with accountability for their appropriate allocation.

9.4.4 Informal Caregivers

Witnesses expressed concerns that the reduction in inpatient hospital services has increased the burden of care on families and friends. This shifting of the care from the public to the formal and informal private sector is occurring at the same time that family size is diminishing and the older population is increasing.

The financial burden for family members and close friends who assume care of a person discharged from acute care or released into home palliative care can be high. In the 1996 General Social Survey on social and community support, 86 percent of caregivers provided unpaid informal care. Overall, about 15 percent indicated that their informal caregiver duties were taking an economic toll on them and their families. Women aged 45 to 65 years were most likely to provide care.²⁴⁵ The National Advisory Committee on Aging, in its advisory role to the federal Minister of Health, recommended that the Canada Pension Plan and Employment Insurance be adjusted to accommodate individuals who leave the workforce temporarily to provide informal care.²⁴⁶

We see over and over again, informal caregivers being pressured by the lack of services in the community and no support for them. It is a critical situation that needs to be addressed for chronically ill, disabled or dying patients.

Diane McLeod, VON, (14:17)

With the process of deinstitutionalization, both for acute care and with mental health, witnesses observed that the dollars did not follow the patients into the community but were used for other purposes. As a result, individuals needing care turned to family members and close friends for support. These informal caregivers in turn spend hours of their time as well as money arranging needed supports and services for the family member or friend shifted from the institution to the community. According to the Roeher Institute - a national research

²⁴³ Nadine Henningsen (14:20).

²⁴⁴ Kathleen Connors (13:71).

²⁴⁵ Kelly Cranswick, "Canada's Caregivers," *Canadian Social Trends*, Winter 1997, Statistics Canada, No. 11-008-XPE.

²⁴⁶ National Advisory Council on Aging, *Position on Home Care*, No. 20, Ottawa: March 2000.

organization focusing on public policy concerns of persons with intellectual and other disabilities - the time-consuming process of finding funding, working with several agencies, managing schedules for several therapists, and obtaining respite services can lead to serious physical and mental burnout for informal caregivers.²⁴⁷

The need to prevent physical and mental burnout of informal caregivers is an issue for all families caring for someone at home. Witnesses argued that when home care is considered, the financial cost of respite programs for the unpaid caregiver must be part of health costs. They advocated for low-cost interventions that included: information and advice, time for themselves, psychosocial support through self-help and other groups and advocacy on their behalf.

Witnesses called for the federal government to work closely with the provinces and territories in the development of a national respite strategy to give people time off from their care-giving so that they can recuperate and have a personal life and some recreation. The strategy could include a wide variety of financial mechanisms to support caregivers such as the tax system, employment policies, employment insurance and pension systems as well as direct payments.

9.4.5 Information and Research

Witnesses pointed to the large number of unanswered questions in relation to home care and called for enhanced information systems and increased research. Like other witnesses in the Committee study, those talking specifically about home care emphasized that more evidence is needed in order to make responsible decisions. In their view, all aspects of care delivery need to be documented and evaluated including looking at who would be the best-qualified, trained and supported home care workers and whether the organization providing services is utilizing the "best practices" in all aspects from worker training to care delivery.

Witnesses on health information generally pointed out that the area is currently hospital- and physician-dominated. This was reiterated by witnesses on home care generally and those addressing mental health concerns. It was noted that, although most mental disorders are treated in the community, rather than in hospital, data on mental illness come primarily from hospital data with a growing body of knowledge based on national health surveys.²⁴⁸

In relation to home care information systems, witnesses envisioned needs that included: a common assessment system oriented to client outcomes; a common service classification system; and a clinical information

There is little statistical information in the community sector to help in decision making critical to the effect of delivery of care. At the present time, we basically have a paper-based system. This not only causes enormous inefficiencies and extra cost but also, perhaps more importantly leads, to an inadequate capacity to assess quality of services. Unlike the institutional sector, governments across Canada have not made a significant investment in development of an information system for home care.

Diane MacLeod, VON (14:16)

²⁴⁷ Roehrer Institute, *When Kids Belong: Supporting Children with Complex Needs - At Home and In the Community*, North York (Ont.) Roehrer Institute, 2000.

²⁴⁸ Tom Lips (19:20).

system to support multi-disciplinary teams. Régis Paradis, from the Ordre des infirmières et infirmiers auxiliaires du Québec, stressed the need for uniform data collection after standardized surveillance:

*(...) we need reliable and well-documented interprovincial data on the performance and effectiveness of the health care system, particularly as regards home support services. The Canadian Institute for Health Information is an example of what can be done. The work done by Human Resources Development Canada is also important as it provides an overall assessment of the problem of human resources in a given area.*²⁴⁹

On home care research, witnesses advocated shifting research funding away from its current channel through established organizations such as hospitals and universities to targeted research funding for the community sector. Research questions included broad ones about the role of government and the role of private for profit and private not-for-profit organizations; the role of family and friends and community; and more specific ones about the level of per capita spending on home care compared to hospitals and residential care and quantitative data about the effect of the change from CAP to CHST on home care.

For those closely involved in home care, little is known about ways that home care can be incorporated as part of hospital downsizing exercises or into primary care innovations. They want to know the effectiveness and efficiency of offering incentives to physicians to collaborate with home care nurses and case managers, of developing professional and paraprofessional teams, of organizing physical, technical and human resources differently. In particular, they want to develop common outcome-oriented assessments and common classification that will permit wider application of research results.

9.4.6 Prescription Drugs

For many witnesses, the impact on the home care sector of discharging sicker patients earlier into the community has significance for the drug costs as well as other costs that must be paid for by an in-home care patient. As Dr. Taylor Alexander emphasized: "Home care, which was designed to support people not only in an acute phase but over a long period of time, is being required to shift increasing resources into what is called "acute care substitution." In other words, it is like the hospital at home with all of the accompanying high-tech and high-cost resources."²⁵⁰ Prescription drugs are among the high-cost resources that are covered by medicare while persons are in hospital, but not when they return home.

There is a fear that the lack of coverage for prescription drug costs can place the health of a person at risk, especially for those who cannot afford to buy all the drugs they require. One at-risk group is the de-institutionalized mentally ill who may lack both financial and other resources for appropriate drug treatment at home.

²⁴⁹ Régis Paradis (13:53).

²⁵⁰ Dr. Taylor Alexander (14:25).

In relation to palliative care, witnesses emphasized that one critical element of an effective palliative care is for the patient to be pain free. Dr. Taylor Alexander referred to palliative care situations where there is a widespread lack of adequate pain management, often because patients and families simply cannot afford the drugs to control the pain. This tragic situation results in unnecessary suffering for persons who are ill.²⁵¹

The Senate report on end-of-life care provided an overview of provincial responses to questions about the removal of financial barriers to community palliative care caused by the cost of drugs and other medical supplies. It indicated that many provinces had already taken steps or were in the process of providing drugs to people designated as palliative by physicians or case management assessments.²⁵²

9.4.7 Telehealth

Technology in various telehealth applications is seen as vital to the home care discussion. The ability to connect a patient's in-home monitoring equipment to local health facilities over telephone lines is already a reality. Other possibilities are close to realization. Various telehealth applications relevant to home care include: telemedicine involving medical consultations, diagnosis, rehabilitation for the home care patient from a distance; tele-education for information exchange between professionals and the home care patient; telemonitoring where patients undergoing hemodialysis, cardiac, oncological treatments can be monitored or elderly persons can be assisted at home; and tele-networking for linkages of home care patient records with pharmacies and laboratories.

In about 10 years, you will have a communication device in your home. It will not be a television. It will be a flat screen TV, probably a plasma screen, on your wall. It will be voice-activated. You will talk to it. You will say, "Connect me to my doctor." It will dial automatically for you. You will have a discussion. You will have a slot to put your finger in; it will do a blood test and take your pulse. This technology exists now. This is not dreaming.

William Pascal, Office of Health and the Information Highway, Health Canada (12:24)

Various provinces are trying different approaches to link home care and professionals. Ontario and New Brunswick have recently established centres with 24-hour nurse call centres for people to phone for medical information and advice. Health Canada has worked with Ontario to set up projects where a monitoring station within a hospital links nurses and physicians to home care health workers operating through community care access centres.²⁵³

As witnesses noted, the efficiencies of telehealth in relation to home care still need to be assessed. Current cost analysis suggests that links to a person's home can save money in several ways. From the health professional's perspective, one nurse could see many more people in their homes if the nurse was not required to drive long distances by car each day. From the health care system perspective, information from the United States suggests that the management of children with asthma using computer systems in schools could result in a

²⁵¹ Dr. Taylor Alexander (14:14).

²⁵² Senate Subcommittee to Update of Life and Death, *Quality End-of-Life Care: The Right of Every Canadian*, June 2000, Appendix I: Update 2000.

²⁵³ William Pascal (12:24).

decrease in hospitalization and an improvement in wellness. From the family perspective, it could save money on travel costs. For example, the cost of transporting a child and the family from Thunder Bay to Toronto could be \$1,300 per family.²⁵⁴

The Committee also heard that another benefit of telehealth in the home as well as elsewhere is that such technology can reduce language and literacy problems for people interacting with the health care system. Dr. Thomas Ward of the F/P/T Advisory Committee on Health Human Resources pointed out that: "In the Maritimes we have a significant problem with literacy, particularly in the adult population. Most people leave school at a young age to work on the fishing boats or in the mines. That population can be maintained at home through the opportunity for some sort of interactive link through television sets. The technology is there such that someone at the other end - a face - can answer a question, and it does not require someone to sit down and read through some technical document."²⁵⁵

9.5 Committee Commentary

The Committee agrees with witnesses that the home care issues related to national standards, human resources, organizing and financing, informal caregivers, information and research, prescription drugs, and technology must be addressed quickly. It favours increased public policy being given to home care and alternative care provision. The mounting evidence of cost effectiveness in home care delivery is encouraging, as is the extensive participation by community organizations in articulating the needs of those members of the Canadian population who could most benefit from increased home care services.

The Committee also recognizes that while extensive discussion has ensued around the issue of home care as a substitute for acute care, insufficient attention has been given to home care as a substitution for services in long-term and residential facilities. There is also a lack of data and research about home care in relation to palliative care and home care with respect to prevention of incapacity through social and other supports.

The Committee also acknowledges that the federal government currently has several avenues for influencing home care outcomes in Canada.²⁵⁶ To further the development of home care as a national program, the federal government could continue and expand its funding for direct home care programs and services for specific groups under its jurisdiction. It could increase federal transfers under the CHST to assist provinces in developing home care programs in their respective jurisdictions or design a targeted program for specific aspects of home care. It could offer additional financial assistance to home care consumers through tax credits and deductions. It could collect and analyze home care data and increase research funding in the area. It could promote telehealth projects in the area of home care. It could enlarge the scope of the *Canada Health Act* so that necessary health care services are provided in care settings other than hospitals and physician's offices. And finally, to accomplish all this, it could ensure that there is extensive federal, provincial and territorial consultation.

²⁵⁴ *Ibid.*

²⁵⁵ Dr. Thomas Ward (13:26).

²⁵⁶ Nancy Miller Chenier, *Home Care: A Federal Perspective*, Ottawa: Parliamentary Research Branch, Library of Parliament, TIP 77-E 19 December 2000.

CHAPTER TEN:

RURAL HEALTH

Rural Canada occupies 9.5 million square kilometres, or about 95 percent of Canada's territory. Approximately nine million Canadians, or about 30 percent of the total population, live in rural and remote areas of the country. Rural and remote areas in Canada embrace varied terrain and economic activities spanning resource, manufacturing and service industries. Observations about rural Canada suggest some defining characteristics:

- Rural Canada includes rural and remote communities as well as small towns outside major urban centres.
- Rural populations that are more distanced from urban centres continue to decline, particularly as young people leave for educational and employment opportunities and as seniors leave to seek greater access to long-term care.
- Rural populations in closer proximity to cities or in recreational areas are increasing.
- Across Canada, more than half of the Aboriginal peoples (whether on reserves or in Inuit or Métis communities) live in rural areas.
- Ontario and British Columbia have the lowest percentage of rural residents while the territories and Atlantic provinces have the highest. Almost half of the population in Atlantic Canada live in rural areas.
- Seniors, children and youth under the age of 20 are over-represented in rural regions of Canada. More precisely, the 1996 Census shows that, compared with the national average, rural Canada has a higher percentage of children between the ages of 5 and 19, a lower percentage of males between 20 and 39 and females between 20 and 49, and a higher percentage of males over 55 and females between 60 and 69.
- Rural areas have generally higher unemployment rates and lower formal education levels.
- Rural people living in the Prairie provinces have a lower unemployment rate than do people living in Atlantic Canada.²⁵⁷

10.1 Health Status Indicators

A recent report, entitled *Rural, Remote and Northern Health Research: The Quest for Equitable Health Status for All Canadians*, points out that there is not a great deal of information

²⁵⁷ Canada, Canadian Rural Partnership, *Questions for Rural Canadians: Rural Dialogue Workbook*, Ottawa, 1998; Canada, Rural Secretariat, *Working Together in Rural Canada: Annual Report to Parliament*, Agriculture and Agri-Food Canada, May 2000.

available on the health of rural Canadians, although data on life expectancy, death rates and infant mortality rates give some broad indicators of health. Overall, compared to urban areas, life expectancy in rural regions is shorter while death rates and infant mortality rates are higher. In 1996, life expectancy for rural females was 80.82 years as opposed to 81.31 years for urban females. The comparable figures for rural and urban males were 74.67 years and 75.67 years, respectively.²⁵⁸

Overall, the health status of rural and remote residents is lower than that of their urban counterparts. Dr. Peter Hutten-Czapski, President of the Society of Rural Physicians of Canada, noted:

There is a trend towards a progressive deterioration in health as one moves from an area bordering urban centres into the very remote hinterland.

Dr. Peter Hutten-Czapski, President, Society of Rural Physicians of Canada (17:13)

Health status decreases as one travels to more rural and remote regions. As an example, heart disease is common in northern Ontario. Certain types of cancer are found among miners and farmers. There are substantially higher rates of diabetes, respiratory and infectious diseases, as well as violence-related deaths, in some aboriginal communities. Combined, there is an increase in mortality in rural regions as evidenced by life span.

The lower life expectancies are not associated with just a few specific causes; rather, the mortality rates in these regions are higher for most causes of death. Consistent with other measures of the health of the population, there is an association with socio-economic factors: life expectancy decreases as the rate of unemployment increases and the level of education decreases.²⁵⁹

The health and health care needs of rural Canadians are different from those of Canadians living in urban areas. As Health Canada's Office of Rural Health pointed out:

Rural realities and health needs differ from those of urban areas. These needs may be particular to the environment (e.g., the need for education on tractor roll-over prevention), changing demographics (e.g., an increase in the seniors' population in some rural areas), a common health need present in a rural environment (e.g., the health status of First Nations' communities), or the need for health concerns to be expressed in a 'rurally sensitive' way (e.g., obstetrical services that do not generate an excessive 'travel burden' on rural women).²⁶⁰

This statement highlights some of the particular populations in rural Canada that may have special needs based on factors such as age, gender, ethnicity, and occupation. For example, various studies have shown that:

²⁵⁸ M. Watanabe with A. Casebeer, *Rural, Remote and Northern Health Research: The Quest for Equitable Health Status for All Canadians*, A Report of the Rural Health Research Summit, January 2000, p. 21.

²⁵⁹ Peter Hutten-Czapski, *State of Rural Health Care*, Brief to the Committee, 31 May 2001, p. 3.

²⁶⁰ Health Canada, *Rural Health* (<http://www.hc-sc.gc.ca/ruralhealth/>).

- Seniors in Canada are over-represented in rural regions, as are children and youth under the age of 20. There are particular issues for seniors needing assisted home care or long-term care and for children and youth with special medical needs or who are in abusive situations.
- Farmers, fishers, foresters, and miners can face serious health hazards in their jobs. In addition to accidents related to the increasingly complex machinery used in these occupations, there are hazardous exposures to chemicals, noise, long working hours, temperature extremes, infectious diseases, and stress.
- While Aboriginal peoples face an array of health problems related to their socio-economic status, they also experience some of the cultural insensitivity experienced by new immigrants such as lack of services in their own language, health care personnel who are unaware of cultural practices, and problems associated with services designed for a mainstream population.²⁶¹

10.2 Access to Health Services in Remote and Rural Areas

The accessibility criterion of the *Canada Health Act* requires that reasonable access to insured health services be provided to all Canadians on uniform terms and conditions and without financial or other barriers. Dr. John Wootton, former Executive Director of the Office of Rural Health (now Special Advisor on Rural Health, Population and Public Health Branch, Health Canada) raised the problem of accessibility for rural residents, when he stated: "If there is two-tiered medicine in Canada, it's not rich and poor, it's urban versus rural."²⁶²

If there is two-tiered medicine in Canada, it's not rich and poor, it's urban versus rural.

Dr. John Wootton, quoted in Farm Family Health.

Canadians living in rural and remote areas are limited to a smaller range of health care providers when seeking care than are their urban counterparts. Rural hospital closures and centralization of health services have had an impact on rural residents. Rural physicians explained that, when the insured health services are not available from local providers in local health care facilities, rural residents must travel long distances and incur additional costs for transportation and other needs such as hotels. This can also negatively affect their health:

We must understand that if rural people are forced to travel for care, some will not travel. If they do not travel, they cannot achieve the health outcomes of people who are able or willing to travel. Some will travel, but the delay caused by the travelling or the need to travel will be costly to them. Others will be subject to the hazards of transport or inclement weather. Collectively forcing people to travel long distances for health care, even to a centre of the highest standards, will adversely affect health outcomes.

²⁶¹ For an overview of these factors, see Therese Jennissen, *Health Issues in Rural Canada*, Parliamentary Research Branch, BP-235E, 1993.

²⁶² Interview with Dr. John Wootton, "New Office to Focus on Rural Health Issues," *Farm Family Health*, 7(1) Spring 1999.

*This is a particular concern for women's health. Studies show that women do poorly if they must travel long distance to give birth. In Saskatchewan, it should be noted, the 1993 closure of 53 rural hospitals was followed by an increase in its perinatal mortality rate. We cannot say that these things are causal, but it is certainly concerning.*²⁶³

The recruitment and retention of health care personnel including physicians, specialists, nurses, technicians, social workers, physiologists and nutritionists, in remote and rural areas of Canada have been ongoing concerns. Access to physician services is a particular problem. For example, Dr. Hutten-Czapski stated:

*Doctors are concentrated where the most healthy people in the country live, and the sickest populations have the least access to health care, so the gap between urban and rural grows.*²⁶⁴

Physician shortages in rural and remote communities have been persistent and are expected to continue. According to the Canadian Medical Association:

- While approximately 30% of Canadians live in rural or remote areas, only 10% of Canadian physicians practise outside Census Metropolitan Areas or Census Agglomerations;
- Of the approximately 5,700 rural physicians, 87% are family physicians;
- While the majority of rural physicians (72%) graduate from Canadian medical schools, the number of Canadian graduates varies from region to region. In Newfoundland, one-third of the rural physicians are Canadian graduates; in Saskatchewan, one-fifth of rural doctors have graduated from Canadian medical schools. In Quebec, 95% of rural physicians have been trained in Canada.²⁶⁵

Statistical modeling predicted a decrease of rural physicians from 5,531 in 1998 to 4,529 in 2021. The ratio of physicians per 1000 population will decrease from an already low 0.79 physicians per 1000 population in 1999 to 0.53 by 2021 (a 33% decrease).

Society of Rural Physicians of Canada, Brief, p. 1

(...) the rural physician currently is produced by accident and not by design. In fact, the largest source of medical school that is more pertinent to rural Canada is the University of Johannesburg. We have 1,500 physicians from South Africa in Saskatchewan.

Dr. Hutten-Czapski (17:29)

In the early 1990s, the federal and provincial/territorial Ministers of Health considered strategies for physician resource management and by the end of the decade were examining options for both physicians and nurses through the Federal/Provincial/Territorial Advisory Committee on Health Human Resources. A discussion paper prepared for this Committee in 1999, entitled *Improving Access to Needed Medical Services in Rural and Remote Canadian*

²⁶³ Dr. Peter Hutten-Czapski (17:13).

²⁶⁴ *Ibid.*

²⁶⁵ Canadian Medical Association, *Rural and Remote Health in Canada*, Brief to the Committee, 31 May 2001.

Communities: Recruitment and Retention Revisited (Barer and Stoddart, 1999), attributed the lack of access to physicians services in remote and rural areas compared to urban settings to "a fundamental mismatch between the needs of rural and remote communities ... and the needs and choices of (and influences on) those who become physicians."²⁶⁶ Barer and Stoddart also pointed out:

*There are many communities across the country that are simply too small to support a general practitioner, or that are large enough to support one but too small to support two or three, let alone the full range of specialists found in large urban centres. For their part, most Canadians who are accepted into the medical schools across the country have grown up in urban settings; the bulk of their medical training occurs in urban settings; that training takes place largely in tertiary hospitals which are only found in urban settings; much of the training is provided by physician-educators who work in urban settings; there are (given in per capita terms) more practice opportunities in urban settings; access to specialist colleagues and other complementary treatment and diagnostic resources are more plentiful in urban settings; hours of work are more likely to be 'regular' in urban settings and, in particular, call schedules are less onerous; and there are many more social, educational, recreational, employment and cultural opportunities for physicians and their families in urban settings.*²⁶⁷

Experts suggest that, while policy approaches to dealing with physician shortages in rural and remote areas have been economic or financial, most of the determinants of practice location involve a complex mix of factors involving far more than financial considerations.²⁶⁸ Personal background, professional education and practice factors, personal considerations (e.g., children's education, recreation, spousal job opportunities) and community size and are also important influences in practice locations. Financial considerations, however, are not as important as personal factors. The physicians who moved for professional reasons also indicated that the presence of certain factors such as additional colleagues, *locum tenens* (physicians who temporarily carry on the practice for an absent colleague), opportunities for group practice, specialist services and alternative compensation would have influenced them to remain in rural practice.²⁶⁹

Unfortunately, there is very little data on registered nurses or other health care providers in similar settings.

A variety of measures have been proposed to help alleviate the shortage of physicians in under-serviced areas. For example, these include:

²⁶⁶ Morris L. Barer and Greg L. Stoddart, *Improving Access to Needed Medical Services in Rural and Remote Canadian Communities: Recruitment and Retention Revisited*, Discussion paper prepared for the Federal/Provincial/Territorial Advisory Committee on Health Human Resources, June 1999, p. 3 (available on the Internet at <http://www.srpc.ca/librarydocs/BarSto99.htm>).

²⁶⁷ *Ibid.*

²⁶⁸ Morris L. Barer, Laura Wood, and David G. Schneider, *Toward Improved Access to Medical Services for Relatively Underserved Populations: Canadian Approaches, Foreign Lessons*, Centre for Health Services and Policy Research, The University of British Columbia, May 1999, p. 7.

²⁶⁹ William Tholl, Secretary General and Chief Executive Officer, Canadian Medical Association (17:8).

- Reserving undergraduate medical school places for qualified applicants willing to commit to rural area practice;
- Revising admission criteria for medical schools to favour qualified rural applicants;
- Enhancing rural area exposure in both undergraduate and post-MD training;
- Developing new residency training programs designed explicitly to prepare specialists to serve as rural regional consultants; and
- Introducing or increasing financial incentives to encourage choices of specialties in short rural supply.

Provincial and territorial governments have used a number of incentive programs to attract physicians to practice in rural and remote areas. Most of these are financial in nature, but some focus on working conditions, some seek to direct where physicians can establish practices, others recruit foreign medical graduates and others focus on attracting rural residents to attend medical school and providing rural exposure in the course of medical training.

Research demonstrates that a greater proportion of trainees from rural settings will return to rural areas because they are already comfortable with the rural culture. As governments acknowledge that it may be easier to retain physicians in rural and remote areas if they have grown up there, programs to attract rural residents to become doctors are becoming more common. One such program will be the creation of a rural medical school in northern Ontario – the “Thunder-Barrie Medical School”. Rural physicians challenged the federal government to commit half of the funding for the establishment of rural medical schools in Canada.

Many doctors do come to rural communities as a result of (...) incentive programs. The problem is that doctors are not staying.

Dr. Peter Hutten-Czapski (17:13)

Barer, Wood and Schneider (1999) also pointed out that while all provinces and territories face similar issues and problems in relation to the distribution of health services and personnel, there has not been a great deal of cooperation among them in attempting to solve these problems.

The failure to develop any pan-Canadian initiatives has meant a history of destructive competition rather than co-operation.

Barer, Woods and Schneider (1999)

William Tholl, Secretary General and CEO of the Canadian Medical Association (CMA), attributes this lack of success to the fact that these financial programs have little to do with the major factors involved in a physician's decision to locate and stay in a rural or remote area – those that are non-financial in nature.²⁷⁰ Moreover, the lack of cooperation among the provinces suggests that the federal government could play a useful role in fostering inter-provincial collaboration.

It is important to note that Canada is not alone in experiencing problems in providing health services to rural and remote locations. Significant variations in the geographic supply of health services occur in virtually every industrialized country. The United States, Australia and New Zealand, for example, are experiencing health care personnel distribution

²⁷⁰ William Tholl (17:9).

problems similar to those found in Canada. Like Canada, these countries have adopted a number of policy approaches to deal with these problems.

10.3 Telehealth

Many experts see telehealth as an important vehicle for delivering health services to rural and remote areas. Supporters of telehealth believe that it holds significant promise in this regard. The Office of Health and the Information Highway at Health Canada is promoting telehealth as a way to offer fairer distribution of health resources and to connect patients and health care providers separated by geographic distance. The Society of Rural Physicians of Canada sees both potential and risks in telehealth. The potential lies in its ability to supplement the skills and abilities of existing rural health care workers to deal with problems that would otherwise require patients to travel out of the community to access needed care. The risks, on the other hand, lie in its potential to divert resources away from the local community with the result that needed care can be accessed only from outside sources.²⁷¹

Telehealth is a very positive step of providing health care to rural residents of our country.

Dr. Judith Kulig, Consortium for Rural Health Research (17:6)

10.4 Rural Health Research

Witnesses confirmed that many gaps exist in information on the health status of individuals and communities in rural Canada. Similarly, there is not a substantial body of research on rural health issues. In the view of witnesses, rural health issues tend to be eclipsed by those in urban areas. Policy solutions often are based on experiences in urban areas and rely on urban data and research. A position paper prepared for the Canadian Health Services Research Foundation and the Social Science and Humanities Research Council pointed out:

Because the health problems confronting rural Canada are serious, complex, interrelated and evolving, research should have a critical role to play in examining the nature of these problems, monitor their progress or deterioration, identifying their causes, finding solutions and evaluating the effectiveness of various interventions. However, to date, rural health research has not received substantial or sustained support from major health research granting agencies in Canada. Generally speaking, within the health research community, rural health issues are either overlooked or dealt within a "generic" manner. In "generic" studies, even when rural is mentioned, it is commonly used as a convenient comparison category to illustrate urban-rural differences. Rural is rarely the focus of attention, yet findings and recommendations from urban-based research are often considered universally applicable or are extrapolated to rural settings.²⁷²

²⁷¹ Society of Rural Physicians of Canada, Brief, p. 4.

²⁷² Raymond W. Pong, Anne Marie Atkinson, Andrew Irvine, Martha MacLeod, Bruce Minore, Ann Pegoraro, J. Roger Pitblado, Michael Stones, and Geoff Tesson, *Rural Health Research in the Canadian Institutes of Health*

One of the weaknesses identified in rural health research is lack of coordination and planning. A 1999 Rural Health Research Summit was held to develop a "Blueprint" for future action in rural health research. Other initiatives such as the development of the Canadian Institutes of Health Research (CIHR), increases in health research budgets and the appointment of a special advisor on rural health to CIHR's President have been important developments in rural health research. In addition, a Rural Health Research Consortium was formed in 1999 to build capacity in research endeavours related to health in rural and remote areas.

10.5 The Federal Role

The federal government has responded to the concerns of rural Canadians in a number of ways. For example, the Office of Rural Health was established in September 1998 to ensure that the views and concerns of rural Canadians are better reflected in national health policy and health care system renewal strategies. In February 1999, the federal government announced funding of \$50 million over three years (from 1999-00 to 2001-02) to support pilot projects under the "Innovations in Rural and Community Health Initiative."

In June 2000, the federal government announced a National Strategy on Rural Health that it sees as an important milestone on the road to ensuring that all Canadians have reliable access to quality health care. Then, in July 2001, the federal government announced the establishment of a Ministerial Advisory Committee on Rural Health to provide advice to the federal Minister of Health on how the federal government can improve the health of rural communities and individuals.

10.6 Committee Commentary

The Canadian health care system faces many challenges, some of the greatest of which are providing for the health care needs of those who live in rural and remote areas of the country. We know that, generally, rural Canadians have: higher death rates; higher infant mortality rates; and shorter life expectancies than do urban Canadians. We also know that certain types of diseases and conditions are more prevalent in rural areas and among occupations associated with a rural environment. But witnesses pointed out that little is known about the overall health status of rural Canadians. Dr. Judith Kulig, Consortium for Rural Health Research, characterized the adequacy of information on the health status of rural residents as very poor.²⁷³ She attributed this to the limited number of individuals pursuing rural health topics and the limited number of dollars to support research in this field.

Providing equal access to health care is a challenge in rural and remote areas of Canada. The Committee was told that systemic trends such as inadequate numbers of rural doctors and increasing centralization of medical services have the effect of impeding access. The current medical education system is not geared to producing sufficient numbers of doctors who are interested in committing to rural practices; as well, provincial financial incentive programs to attract and retain rural physicians have not had high success rates. Telehealth

Research, A position paper prepared for Canadian Health Services Research Foundation and Social Sciences and Humanities Research Council, p.3.

²⁷³ Dr. Judith Kulig (17:4).

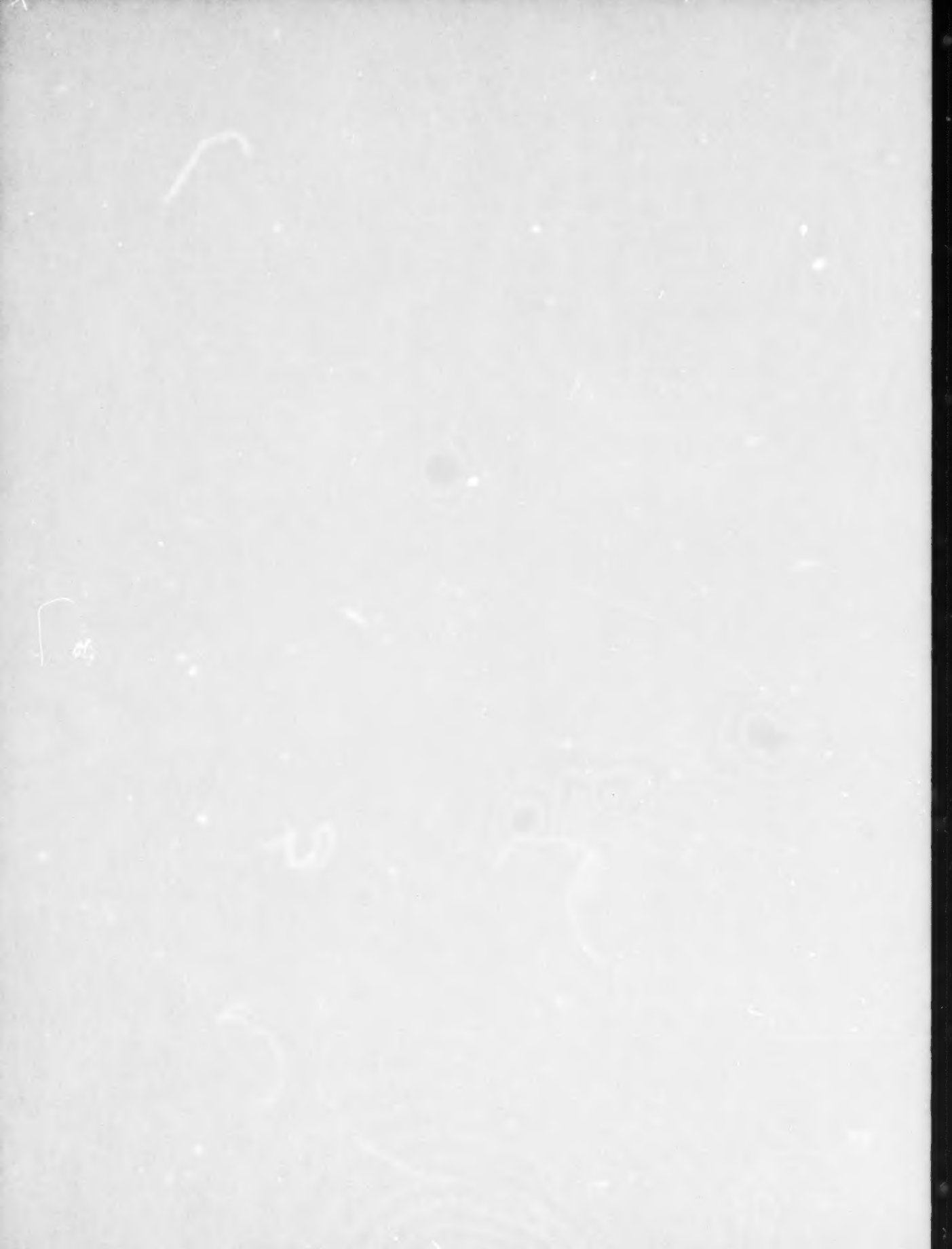
applications can help solve some of these problems, but they constitute only one part of the solution.

Witnesses emphasized the importance of federal, provincial, and territorial cooperation in developing national strategies to deal with rural health issues whether in the areas of planning, research, health human resources or reducing structural barriers to national rural health policy advancement. They argued for a federal presence in areas such as funding, immigration, planning, evaluation, information-sharing and co-ordination, technology, facilitating consensus, promoting innovative solutions to rural health issues, and an expansion of the mandate of the Health Canada's Office of Rural Health.²⁷⁴

The Committee hopes that the recently established Ministerial Advisory Committee on Rural Health will lead to concrete policies and programs that will effectively contribute to enhancing the health of rural Canadians.

²⁷⁴ In September 1998, the Office of Rural Health was established in Health Canada to apply a "rural lens" to the federal government's policies, programs and services. The Office's mandate is to:

- Provide policy advice on rural health issues;
- Identify rural health issues in relation to broad federal, departmental and regional priorities;
- Foster understanding about rural health issues of national concern and build consensus on how to address them;
- Identify emerging trends;
- Work with others to promote, encourage or influence action on rural health issues; and
- Promote the involvement of rural citizens, communities and health care providers.



CHAPTER ELEVEN:

MYTHS AND REALITIES

As mentioned in the Phase One report, the debate about Canada's health care system and its future has generated a great deal of confusion. In this chapter, the Committee briefly analyzes a series of arguments in order to help separate myth from reality. We hope that this information will contribute to an informed, fact-based debate on health and health care.

11.1 Demographic Aging

Myth: The single biggest increase in health care spending is attributable to the needs of older Canadians.

Reality: Persons over 65 consume, on average, more health services than those under 65. However, the aging of the population is only one of the many factors – related to both supply and demand – contributing to increasing health care costs. Other cost drivers include the use of new technology, the cost of new drugs, changing public expectations, and new and changing patterns of diseases. These all have a significant influence on the cost of health care.

Canadians are living both longer and more healthily. Therefore, the anticipated demographic impact of aging on the health care system needs to be revisited. Moreover, while the costs associated with aging must be analyzed and managed, a more significant issue concerns the health care costs that are generally incurred during the last six months of life, regardless of age. The cost of medical care that individuals receive skyrockets as they near the end of their life. As a result, it is not the aging per se of the population which has an impact on health care costs, but rather the overall increase in the population.

11.2 Spending on Drugs

Myth: Spending on drugs is increasing because of higher drug prices.

Reality: A number of factors are responsible for increased spending on drugs such as increased utilization, a shift in prescribing patterns away for older less expensive drugs to newer costlier medications, and prices increases. Using data from British Columbia, the Federal/Provincial/Territorial Task Force on Drug Utilization (see Chapter Two) found that that changes in prescription drug spending could be attributed to the following cost drivers: increased utilization of existing drugs (50%), sales of new drugs in their first full year (32%) and price increases of existing drugs (18%). Thus, increased utilization and a shift to newer drugs, not prices increases have been largely responsible for recent increases in spending on drugs.

Myth: Canadians in all parts of Canada have equal access to prescription drugs under provincial government Pharmacare plans.

Reality: There are significant regional variations in who is eligible for coverage and the reimbursement levels under government drug insurance plans. Residents of Atlantic Canada do not fare as well as residents in other parts of Canada. Also, substantial numbers of people have inadequate coverage or no coverage at all. Part-time and low-income workers are particularly vulnerable because they often do not qualify for government plan coverage and do not have access to employee benefits plans with drug coverage.

Myth: Drugs prices are the same throughout Canada.

Reality: Drug prices vary from province to province. The Federal/Provincial/Territorial Task Force on Pharmaceutical Prices reported significant differences in the manufacturers' prices across Canada for the same drug products. In 1993, prices in Ontario (the highest-price province) were 8.8% higher than the prices in British Columbia (the lowest-price province). By 1997, the last year covered by the report, price differences had been reduced, with Nova Scotia (the highest-price province) having prices that were 5% higher than the lowest-price province, Manitoba. The Task Force also found that if all provinces in the study had paid the lowest available prices for the same products in 1997, \$60 million would have been saved.

Despite various efforts to control prices, drug spending is expected to continue to escalate largely because of increased utilization and increased consumption of newer more expensive drugs.

11.3 Health Care Technology

Myth: All health care technologies currently used within the Canadian health care system have been evaluated in term of their safety, clinical efficacy and cost-effectiveness.

Reality: Unfortunately, this is not the case. As mentioned in Chapter Three, Canada does not devote a great deal of money to health care technology assessment (HTA). On a worldwide basis, Canada spends less on HTA activities than do other countries. For example, all levels of government invest less than \$8 million in Canada, whereas the United Kingdom provides some \$100 million to its national HTA body – the National Institute for Clinical Excellence (NICE). As a result, health care technologies are often introduced into the Canadian health care system with only superficial knowledge of their safety, effectiveness and cost.

11.4 Aboriginal Health

Myth: The federal government pays for the health services for all Aboriginal people in Canada.

Reality: Health care to Aboriginal Canadians is delivered through a complex array of federal, provincial and Aboriginal-run programs and services. Métis and non-status Indians are not eligible for most federal health-related programs. Health Canada provides services to First Nations (status Indians) and Inuit. These include:

- community-based health promotion and prevention programs to status Indians living on reserves and in Inuit communities;
- non-insured health benefits (NIHB) to status Indians and Inuit peoples regardless of residence in Canada. (As explained in Chapter Five, the NIHB program provides a range of health-related services to eligible beneficiaries who are status Indians, recognized Inuit or Labrador Innu. Benefits include drugs, medical supplies and equipment, dental care, vision care, medical transportation, provincial health care premiums, and crisis mental health counselling.);
- primary care and emergency services in nearly 200 isolated and semi-isolated areas where no provincial services are available;
- public health services in over 400 communities;
- funding for addiction services through treatment centres and addiction treatment workers.

Myth: The Aboriginal population enjoys the same health status as other Canadians.

Reality: The life expectancy of Aboriginal peoples in Canada is at least five years below the average for all Canadians. This is an enormous gap. It has been estimated that increasing the life expectancy of the Aboriginal population by five years would require the elimination of all deaths from cardiovascular diseases (the leading cause) and almost all deaths from cancer (the second cause of death). Although this would appear to be an insurmountable obstacle, the Committee was told that some progress is being made.

Although the discrepancies in the health status of the Aboriginal population are evident, the underlying causes are not easily identified. Aboriginal Canadians are less likely to have finished high school, and are twice as likely to be under Statistics Canada's low income cut-offs. This could help explain some of the factors contributing to the Aboriginal population's higher incidence of health problems.

Overall, a variety of determinants affect the health of Aboriginal Canadians. Witnesses told the Committee that, because many federal departments are currently responsible for delivering a wide range of programs that can have an impact on Aboriginal health, the federal government is, therefore, well positioned to develop and implement population health strategy designed specifically for Aboriginal Canadians.

11.5 Human Resources in Health Care

Myth: Fee-for-service is the only model that physicians will accept.

Reality: Most physicians are currently paid under a fee-for-service scheme in Canada. There is evidence, however, that many physicians would prefer an alternative mode of remuneration. A 1999 survey by the Canadian Medical Association reported that only 33% of respondents would prefer to be paid on a fee-for-service basis. Another 21% would prefer to be

salaried, while less than 1% would select capitation. Approximately 35% indicated a preference for a blend of payments (e.g. mix of fee-for-service and capitation). Data from CIHI (2000) shows that, at present, the proportion of physicians remunerated by non fee-for-service mechanisms ranges from 2% in Alberta to 53% in Manitoba.

The fee-for-service scheme has some drawbacks. First, fee-for-service actively discourages physicians from promoting teamwork, as their individual remuneration depends on the number of patients they see. Second, fee-for-service encourages family physicians to refer as a matter of course many of the more complex cases to specialists because they have no incentive to spend more time with "difficult" cases. Finally, fee-for-service reinforces the public's perception of the current "hierarchy" within the health care system, and can only serve to accentuate demand on the part of individual patients to always consult the most "highly" qualified provider, regardless of whether or not they are the one best-suited to meeting the patient's needs.

11.6 Health Information Systems

Myth: Canada's health care system is structured like a 21st century service industry.

Reality: On the contrary, witnesses stressed that a major weakness in our current health care system is that it still operates as a "cottage industry", despite the fact that the health care sector is an extremely information-intensive industry. Indeed, the most important single ingredient in any diagnosis, treatment and prevention is information. As mentioned in Chapter 8, the health care sector in Canada is not making use of information and communications technology to the same extent as do other information-intensive industries. Moreover, the health care system is not integrated: physicians and other health care providers, hospitals, laboratories and pharmacies all operate as independent entities with limited access to electronic linkages that would enable a better sharing of information.

Greater use of information and communications technology along with better integration of health care providers and institutions would facilitate the determination of causal relationships between the various inputs typical of the health care system and the resulting outputs or outcomes. This would greatly improve evidence-based decision-making by health care providers, health care managers and health care policy-makers. This would allow us to answer such questions as: Are we investing enough, too much, or too little in health care technology? Are there too many, too few, or just enough physicians, nurses, or other health care professionals? Are we getting our money's worth? Currently, we simply do not know the answers to these questions.

The Committee believes that many of the problems facing the health care sector can be successfully addressed only if the industry is prepared to transform itself into a 21st century service industry, rather than remaining mired in a 19th century structure and outlook. In our view, the federal government could provide assistance to encourage this transformation.

11.7 Home Care

Myth: Home care is only for people who are old.

Reality: Although many home care services are aimed at the frail elderly, there are no upper or lower age or other limits for home care requirements. Home care may be appropriate for people with minor health problems and disabilities as well as for those who are acutely ill requiring intensive and sophisticated services and equipment. Services are available to children recovering from acute illness, adults with chronic diseases such as diabetes, persons with physical or mental disabilities, and individuals needing end-of-life care.

11.8 Rural Health

Myth: The health and health care needs of rural Canadians are the same as those of Canadians living in urban settings.

Reality: Health Canada's Office of Rural Health points out that rural health needs differ from those of urban areas. These needs stem from the particular environment, such as the hazards associated with rural occupations including mining, fishing and farming; demographic trends such as an increase in the seniors' population in some rural areas; and the common health needs associated with the presence of a significant number of Aboriginal communities. In addition, there are more problems associated with delivering health services in rural and remote environments compared to an urban setting – distances are greater, the numbers of health care providers are smaller and specialist services may not be readily available.

Myth: The rural health issues faced by Canada are unique to this country.

Reality: Rural health issues tend to be similar throughout the world. Significant variations in the geographic supply of health services occur in virtually every industrialized country. The United States, Australia and New Zealand, for example, are experiencing health care personnel distribution problems similar to those found in Canada.



CONCLUSION

This report completes Phase Two of the Committee's study on health care. It summarizes the evidence we heard from March 2001 to June 2001, and makes reference to documents that were either tabled with the Committee or brought to the attention of the Members.

During Phase Two, the Committee learned a great deal about the major trends that are having an impact on the cost and the method of delivery of health services and the implications of these trends for future public policy and funding. We have heard that issues with respect to demographic aging, the growing cost of new drugs and technologies, shortages of health care providers, the burden of illness, and the particular needs of rural Canadians and Aboriginal peoples all need to be addressed if Canada is to sustain its health care system. The Committee now has a better understanding of how health research and the deployment of a pan-Canadian health info-structure can help improve both the quality of care and the effectiveness of health services delivery in the future. We also understand that health and wellness promotion, disease prevention and population health strategies can contribute to curbing the costs of health care by enhancing the overall health status of Canadians.

With all this background information, we attempted, as in the Phase One report, to shed some light on the current debate over health care in Canada by separating myths from realities. We hope that this report will serve as a useful reference document to anyone who wishes to participate in future phases of the Committee's study on health care.



APPENDIX:

LIST OF WITNESSES (MARCH – JUNE 2001)

Wednesday, March 21, 2001

Statistics Canada:

Réjean Lachapelle, Director, Demography Division

Jean-Marie Berthelot, Manager, Health Analysis and Modeling Group, Social and Economic Studies Division

Brian Murphy, Senior Research Analyst, Socio-Economic Modeling Group

Canadian Institute of Actuaries:

David Oakden, President

Rob Brown, Manager of Task Force on Health Care Financing

Daryl Leech, Chair, Committee on Health Care

National Advisory Council on Aging:

Dr. Michael Gordon, Member

Conference Board of Canada:

James G. Frank, Ph.D., Chief Economist and Vice-President

Glenn Brimacombe, Director of Health Program

Thursday, March 22, 2001

C.D. Howe Institute:

William B.P. Robson, Vice-President and Director of Research

McMaster University:

Byron G. Spencer, Professor

University of Ottawa:

Dr. William Dalziel

Wednesday, March 28, 2001

IMS Health Canada:

Dr. Roger A. Korman, President

Canadian Association of Pharmacists:

Dr. Jeff Poston, Executive Director

Health Promotion Research:

Dr. Robert Coombs, President and CEO

Health Canada:

Barbara Ouellet, Director of Home Care and Pharmaceuticals, Health Care Directorate, Policy and Consultation Branch

Thursday, March 29, 2001

Canadian Association of Radiologists:

Dr. John Radomsky

Thursday, March 29, 2001 (cont'd)

Canadian Coordinating Office for Health Technology Assessment (CCHOTA):

Dr. Jill Sanders, President and CEO

The Fraser Institute:

Martin Zelder, Director of Health Policy Research

As an individual:

Professor David Feeny

Wednesday, April 4, 2001

Health Canada:

Dr. Christina Mills, Director General, Centre for Chronic Disease Prevention and Control – Population Public Health Branch

Dr. Paul Gully, Acting Director General, Centre for Infectious Disease Prevention and Control

Dr. Clarence Clotey, Acting Director, Diabetes Division, Bureau of Cardio-Respiratory Diseases and Diabetes, Centre for Chronic Disease prevention and Control

Nancy Garrard, Director, Division of Aging and Seniors

Dalhousie University:

Dr. David MacLean, Departmental Head, Community Health and Epidemiology

Thursday, April 5, 2001

Health Canada:

Abby Hoffman, Director General, Health Care Directorate – Health Policy and Communications Branch

Cliff Halliwell, Director General, Applied Research & Analysis Directorate, Information, Analysis and Connectivity Branch

Nancy Garrard, Director, Division of Aging and Seniors

Thursday, April 26, 2001

Canadian Institute of Health Research:

Dr. Alan Bernstein, President

Health Canada:

Kimberly Elmslie, Acting Executive Director, Health Research Secretariat

Statistics Canada:

T. Scott Murray, Director General, Institutions and Social Statistics Branch

Wednesday, May 9, 2001

Canada's Research-Based Pharmaceutical Companies:

Murray Elston, President

Coalition for Biomedical and Health Research:

Dr. Barry McLennan, Chairman

Charles Pitts, Executive Director

Centre for Excellence for Women's Health:

Dr. Pat Armstrong

Wednesday, May 9, 2001 (cont'd)

Canadian Genetic Diseases Network:

Dr. Ronald Worton, CEO & Scientific Director

Thursday, May 10, 2001

Health Canada:

William J. Pascal, Director General, Office of Health and Information Highway, Information, Analysis and Connectivity Branch

Canadian Institute for Health Information:

Dr. John S. Millar, Vice-President, Research and Analysis

Canadian Society of Telehealth:

Dr. Robert Filler, President

Department of Health and Wellness of New Brunswick

David Cowperthwaite, Director of Information System

Wednesday, May 16, 2001

Canadian Medical Association:

Dr. Peter Barrett, President

Canadian Medical Forum Task Force 1:

Dr. Hugh Scully, President

Federal Provincial Territorial Advisory Committee on Health Human Resources:

Dr. Thomas Ward, Chair

Canadian Nurses Association:

Sandra MacDonald-Remecz, Director of Policy, Regulation and Research

Canadian Federation of Nurses Unions:

Kathleen Connors, President

Ordre des infirmières et infirmiers auxiliaires du Québec:

Régis Paradis, President

Nurse Practitioners Association of Ontario:

Linda Jones

Canadian Radiation and Imaging Societies in Medicine (CRISM):

Dr. Paul C. Johns, Past Chair

The Canadian Chiropractic Association:

Dr. Tim St. Dennis, President

Canadian Society for Medical Laboratory Science:

Kurt Davis, Executive Director

Thursday, May 17, 2001

Canadian Home Care Association (CHCA):
Nadine Henningsen, Executive Director

Canadian Association for Community Care (CACC):
Dr. Taylor Alexander, President

Victorian Order of Nurses for Canada (VON Canada):
Diane McLeod, Vice-President, Policy, Planning and Government Relations, Central Region

Wednesday, May 30, 2001

Health Canada:
Ian Potter, Assistant Deputy Minister, First Nations and Inuit Health Branch
Jerome Berthelette, Special Advisor, Office of the Special Advisor Aboriginal Health, First Nations Inuit Health Branch
Dr. Peter Cooney, Acting Director General, Non-Insured Health Benefits, First Nations and Inuit Health

Indian and Northern Affairs Canada:
Chantal Bernier, Assistant Deputy Minister, Socio-economic Development Policy and Programs
Terry Harrison, Director, Social Services and Justice

Assembly of First Nations:
Elaine Johnston, Director of Health

Métis National Council:
Gerald Morin, President

Native Women's Association of Canada:
Michelle Audette, Interim Speaker and President of the Native Women Association of Quebec

Congress of Aboriginal Peoples:
Scott Clark, President, United Native Nations

Inuit Tapirisat of Canada:
Larry Gordon, Member ITC, Health Committee

Pauktuutit Inuit Women's Association:
Veronica N. Dewar, President

National Aboriginal Health Organization:
Dr. Judith Bartlett, Chair
Richard Jock, Executive Director

Canadian Institutes of Health Research:
Dr. Jeff Reading, Scientific Director, Institute of Aboriginal People's Health

W'ikwemikong Health Centre:
Ron Wakegijig, Healer

National Indian and Inuit Community Health Representatives Organization:
Margaret Horn, Executive Director

Thursday, May 31, 2001

Health Canada:

Dr. John Wooton, Special Advisor on Rural Health, Population and Public Health Branch

Canadian Medical Association:

William Tholl, Secretary General and Chief Executive Officer

Society of Rural Physicians of Canada:

Dr. Peter-Hutten-Czapski, President

Consortium for Rural Health Research:

Dr. Judith Kulig

Wednesday, June 6, 2001

University of Ottawa:

Professor Martha Jackman, Faculty of Law

University of Calgary: (by videoconference)

Professor Sheila Martin, Faculty of Law

Thursday, June 7, 2001 (11:00 a.m.)

Health Canada:

Nancy Garrard, Acting Director General, Centre for Healthy Human Development, Population and Public Health Branch

Tom Lips, Senior Policy Advisor for Mental Health, Population and Public Health Branch

Carl Lakaski, Senior Analyst, Mental Health, Health Human Resources Strategies Division, Health Policy and Communications Branch

Canadian Psychological Association:

Dr. John Service, Executive Director

Canadian Alliance on Mental Illness and Mental Health:

Phil Upshall, Coordinator

Canadian Mental Health Association:

Bonnie Pape

Department of Health and Wellness of New Brunswick:

Ken Ross, Assistant Deputy Minister, Mental Health Services